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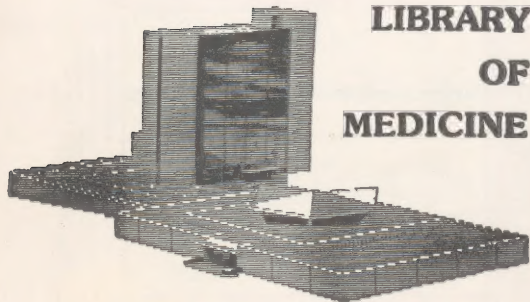
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THE HAPPY WAY TO HEALTH

A LITTLE BOOK ON HOW TO LIVE
IN HARMONY WITH NATURAL LAW

WITH SUGGESTIONS ON THE
PREVENTION AND CURE OF
THOSE AILMENTS THAT COME
FROM A WRONG USE OF THE
BODY AND FROM THE IMPROPER
SELECTION OF FOOD. HOW
TO GAIN HEALTH AND HOW
TO KEEP IT. HOW TO ATTAIN
THE HIGHEST EFFICIENCY
IN WORK AND THE GREATEST
ENJOYMENT IN PLAY.

THE BEST THOUGHT OF THE
HIGHEST AUTHORITIES ON THE
SUBJECT OF "HOW TO LIVE"

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IN THE PREPARATION OF THOSE CHAPTERS IN THIS BOOK WHICH
RELATE TO HEALTH AND DIET, THE FOLLOWING WELL-KNOWN AUTHOR-
ITIES WERE CONSULTED:

- "The Nutrition of Man," by Russell H. Chittenden, Ph.D., LL.D.,
"Diet in Health and Disease," by Friedenwald and Ruhrah,
"Health Through Rational Diet," by Arnold Lorand, M. D.,
"Food and Dietetics," by Robert Hutchison, M. D.,
"Diet in Relation to Age and Activity," by Sir Henry Thompson,
"The Efficient Life," by Luther H. Gulick, M. D.,
"The A. B.-Z. of Our Own Nutrition," by Horace Fletcher,
"Eating to Live," by John Janvier Black, M. D.,
"How to Live," by Irving Fisher and Eugene Lyman Fisk, M. D.,
"Foods and Their Adulterations," by Harvey W. Wiley, M. D., LL.D.,
"Essentials of Dietetics," by Pope and Carpenter,
"What to Eat and Why," by G. Carroll Smith, M. D.,
"Health Through Diet," by Kenneth G. Haig, M. D.,
"Efficient Living," by J. Earle Purinton,
"Colon Hygiene," by J. H. Kellogg, M. D., LL.D.,
"Why Be Fat?" by Amelia Summerville,
"Eat and Grow Thin," by Vance Thompson.

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B I 1 MAY '46

The Happy Way to Health

Health is the most priceless of all human possessions. Without it every other possession is barren of joy; with it one may face all the vicissitudes of life with a brave and happy heart.

With health one may triumph over poverty and adversity; without it no man or woman can fully enjoy the advantages or opportunities that come with wealth.

A man's power to do things, and to do them effectively and thoroughly, depends upon his state of health. It is true that a man who is endowed with unusual courage and will-power may achieve success in spite of the handicap of poor health. But in most human beings poor health not only lowers the earning power, but also decreases the capacity to enjoy work or play. The ordinary pleasures become a bore to the man who is in poor health. Even his ability to make friends depends upon the state of his health. A man in poor health is not an agreeable person. His companionship is not sought. His own family will sometimes tolerate him, but no one else will court his society.

Strange as it may seem, a man is largely responsible for the condition of his own body. Health comes from living in harmony with law. While certain functional

weaknesses and tendencies may be inherited, it is a fact that health is largely in a person's own keeping. Health is a matter of food, exercise, cleanliness and fresh air. As soon as a man emerges from swaddling clothes and begins to exercise freedom of choice he begins to lay foundations of health or disease. It is a fact that thousands of men and women have triumphed over inherited disease by studying and practicing daily habits of living that go to build a sound body. Puny weaklings have become sturdy, robust specimens of physique by eating the right kind of food, by breathing pure air and taking rational exercise.

This little book was written to show you the easy way, the drugless way, the happy way to health—not the way that lies through mountains of pills or rivers of dope—just the simple, natural way that any one may follow without money and without price.

This is not a medical book. It was not written to show you how to cure organic diseases; that is a job for your physician. It was written to show you how to prevent disease, how to keep the delicate mechanism of the human body in top-notch condition, to point out the way to the largest measure of human happiness and the fullest enjoyment of all the powers with which Nature has endowed the average human being. It was written to show the man or woman how to get health and retain health through a proper selection of food for the nourishment of the human body in all sorts of conditions and employments; how to live sweetly, simply and naturally in harmony with those laws that lie at the basis of health and efficiency.

What is Health?

Before pointing out the pleasant way to health it is proper to inquire, What is Health?

The ordinary definition in the dictionary will not do. It is not comprehensive enough. Health is something more than being free from physical disease or pain.

The man in good health is the man whose body performs all its functions in the way that Nature intended. Each organ of the body was designed to perform a certain definite work. Nature will not stand any shirking. Nature recognizes no eight-hour law when it comes to the work that must be done by each organ of the human body. A man may knock off work after eight hours, or ten hours, but the organs of the body which supply strength, which build new tissue, which repair waste tissue, which throw off poisons, which take oxygen from the air and use it to make red blood corpuscles—these go right on working day and night through the long years that measure the span of life.

Now, the manner in which these organs perform their work constitutes health or ill health. It just happens that a man has it in his power to interfere with the natural, proper performance of their work. The Scotch collie dog will not injure his body because he is guided by instinct. He will eat only certain kinds of food; he will not touch alcohol or tobacco, nor will he pervert any organs to an improper use. But man is an animal who is permitted to follow his own volition. He has freedom of choice. He is

not protected by instinct. He may injure his body; he may even destroy it. He may abuse one organ until the others are dragged down with it, and finally the whole delicate mechanism succumbs. He finds his health gone and his body wrecked.

In this business of keeping the human body in good working order food is without doubt the most important factor. Most men and women dig their graves with their teeth. Metchnikoff, the great scientist, claimed that with proper eating death could be indefinitely postponed. He died at seventy-one of organic heart disease which had been transmitted through a long line of ancestors. He worked energetically and enthusiastically up to the last day of his death. Through observance of the laws of nutrition he maintained his mental and physical vigor up to the last moment. Had he not inherited organic heart disease he might have lasted a century.

Doctor Kenneth G. Haig says that "diet, rightly understood, is the foundation of all national and individual wealth." It was a saying of Napoleon that "every army marched on its belly." Seneca, the old Roman senator, said: "Man does not die; he kills himself."

A man who is so fat that life is a burden to him continues to eat potatoes and other starchy vegetables, rich pastries, candy and other fat-making foods. A man whose liver and kidneys are already overtaxed to throw off the poisons that come from indigestion continues to manufacture more poison by eating meat two or three times a day. A man whose arteries are beginning to harden sprinkles all his food heavily with

salt and continues to eat meat and other high-proteid foods. Another man who leads a sedentary life eats enough food at each meal for an outdoor laborer, and so by the time he reaches middle life his entire digestive machinery goes out of business. A man with rheumatism or gout goes right on eating foods that make uric acid. A man who never exercises his bowels by any kind of physical work eats each day nothing but constipating foods.

All of which means that health is largely a matter of nutrition, and this brings us right up to the question of food and its relation to health.

Fuel for the Human Engine

Ask the average person what is food, and he is very apt to say, "Food is something good to eat." Of course that is a very imperfect definition. A vegetable or animal food may be good to eat and yet have very little food value; that is to say, it may taste good and have a savory aroma and excite the salivary glands so that eating is a real pleasure, and yet the human body may derive very little nourishment from it. A person might gorge himself with oysters and lobsters and feel that his appetite was fully satisfied, but his body would derive very little real tissue-building nutriment from these foods. A person might fill himself with watermelon to the point where it was impossible to take any more food, but he would have nothing more in his stomach than a little sweetened water of very little nutritive value. Food is that which we eat to furnish heat and energy and to build new

tissue. Doctor Robert Hutchison, the famous authority on foods, defines food as "anything which when taken into the body is capable either of repairing its waste or of nourishing it with material from which to produce heat or nervous and muscular work."

It is easy to classify foods into nutritious and non-nutritious foods; but let us go farther than that. The human body may be compared to a steam engine, and the food we eat is the fuel for the engine. The analogy is more perfect than you think, for the food is actually "burned." The chemists say it is "oxidized," which means the same thing. In the burning of this food a certain amount of heat and energy is imparted to the body. Some of the fuel goes to the making of new tissue and the repairing or replenishing of that which has been used up in physical exercise or in the process of thinking. You cannot pull out your jack-knife to sharpen a pencil, you cannot think of the face of a friend, without using up a certain amount of tissue and energy. All this must be replenished from food—the right kind of food—or the human engine is soon ready for the scrap-heap. When fuel for an engine is full of clinkers, slate, slag or other non-combustible material you have a hard time getting up steam, and in order to get up steam you have to force the draft and work the engine harder than it should be worked.

It is just the same with the human body. Food that is deficient in proteids will not make muscular tissue; food that is deficient in carbohydrates or fats will not supply the energy or heat that are necessary to keep the human body in good working efficiency.

Food that is deficient in all these elements, or food that is improperly cooked or contains an excessive amount of indigestible waste, is full of "clinkers." The effort to digest it uses up strength that should be applied to mental and muscular performance.

And so we find that the chemists group foods in three classes according to whether they build tissue or furnish heat or energy to the body. These three groups are known respectively as proteids, carbohydrates and fats. The proteids are the real tissue-builders that form the muscles and also give some fuel and furnish some energy. The foods that are particularly rich in proteids are beef, veal, mutton, pork, eggs, fish, peas, beans and the whole wheat. The carbohydrates comprise a large part of our foods. They are chiefly the starches, the sugars and the fiber of plants. They furnish the fuel for the body and thus yield heat and energy. Carbohydrates are also transformed in the body into fatty tissue. Examples of foods that are rich in carbohydrates are potatoes, condensed milk, sugar, honey, beans, peas, dried fruits, tapioca, rice and the whole wheat grain.

The fats are concentrated fuel and from them we get fatty tissue, as well as heat and power. We get fat from meat, fish, nuts, butter and the vegetable oils. The sugars and starches also furnish fat.

Food also contains mineral matter such as sodium, potassium, magnesium, phosphates, iron and sulphur, which have a share in building bones and assisting digestion.

It will be seen from all this that the human body must have in its food a certain amount of proteids,

of carbohydrates and of fats in order to build healthy tissue and supply the needed heat and strength to keep the body in working condition. The question naturally arises, has Nature supplied a food that presents all these elements in the exact proportion needed by the human body? Singularly enough there are very few foods that meet this requirement. If a man subsists upon eggs or roast beef and eats nothing else he gets no carbohydrates. If he eats boiled potatoes, or boiled rice, peas, or cabbage, or white flour bread, he gets very little proteid, but an excess of carbohydrates. If he lives on butter, blubber, animal fat or the vegetable oils, as do the Eskimaux and other inhabitants of cold countries, he will get fatty tissue and an abundance of animal heat, but no proteids. A food that contains just the right amount of proteids, carbohydrates, fats and mineral salts that are necessary to nourish the perfect human body is called "a well-balanced ration." The best-balanced ration which Nature has supplied to man is the whole wheat grain. The whole wheat grain not only supplies all these food materials in proper proportion, but it supplies in the bran-coat a kind of woody fiber which the chemists call "cellulose" and which is necessary to keep the intestines in a healthy and active condition. About this we shall learn more in another chapter.

The Well-Balanced Ration

It is a singular characteristic of the human animal that he gives no thought to the proper selection of food or to the mysterious process of digestion until he

suddenly discovers that something is wrong with the machinery. A pain in some part of the body, the failure of some organ to perform its work, periodical headaches, the presence of gas in the stomach or bowels—these are Nature's warning signals of distress.

Fortunate, indeed, is the man or woman who is wise enough to give some study to the food question instead of loading the poor, jaded stomach with drugs. In nine cases out of ten trouble comes from failure to eat "a well-balanced ration."

Now, what is "a well-balanced ration?" Doctor Edwin F. Bowers says, "It is that particular amount of each variety of food which comes nearest to being completely utilized as fuel and building material, and at the same time leaves as little refuse as possible for the body to get rid of."

As a matter of fact not one person in a hundred exercises any discrimination in the selection of food to meet the particular requirements of occupation, temperament or season. Many persons through ignorance are deprived several months at a time of food elements vitally necessary to growth and physical energy. Nearly all the ills that human flesh is heir to may be traced to excessive eating of the wrong kind of food. If man were allowed to follow the dictates of a normal appetite there is little doubt that he would be properly nourished. A natural, unstimulated appetite would be a safe guide in the selection of food. It would be almost as safe as the instinct of the lower animals. The longing for fruits and green vegetables in Summer is a natural longing and is a safe indication that the body needs that kind of food. But how many

men and women cut out heavy meats, potatoes and other heat-making foods in Summer? It just happens that under our peculiar social customs a man seldom has an opportunity to exercise intelligent choice in the preparation of meals. He eats what is placed before him even though he is used to a well-balanced ration at home. He is certain to commit food follies when invited out or when stopping at hotels. Growing children are starved and stunted with an abundance of food that is deficient in proteids. Men who have to be out of doors in Winter habitually eat foods that are lacking in elements that supply heat and energy.

No one can lay down any hard and fast rules regarding the selection of food that will meet the requirements of every man or woman. It largely depends upon a man's temperament and his daily employments. The man of sedentary life, the desk-man, the thinker and brain-worker, should eat light, easily digested foods such as clear soup, eggs, milk, chops, green vegetables and fruit. Men who need brawn in their daily work should eat plentifully of the foods that are rich in proteids, such as roast beef, steak, beans, peas and cheese. Persons who are thin, pale and emaciated should eat plenty of butter, olive oil, sugar, potatoes, sago, rice, tapioca and other starchy foods.

The logical deduction from all this is that a person inclined to take on fat should cut out fat-making, heat-making foods and stick to lean chops, chicken, roasts, parsley, spinach and other vegetables that grow above ground.

This all brings us again to the question, what is a well-balanced ration for the average human body? Egleston says a healthy man needs every twenty-four hours a total of seven hundred grams of nutritive material—four hundred grams of carbohydrates, one hundred and fifty grams of proteids and one hundred and fifty grams of fats. Recent experiments of such scientists as Hinhade and Chittenden would indicate, however, that this estimate of proteid requirement is too high—in fact, according to Hinhade, we actually require only twenty-five grams a day of proteids to replace worn-out body cells.

The Process of Digestion

Before going any further in the consideration of the kind of fuel that is best suited to the human engine it is well to take at least a superficial glance at the organs that convert this fuel into new tissue, heat and energy.

As we said in the first chapter of this book, this is not a medical work and no attempt will be made to discuss in scientific detail all the functions of all the organs concerned in digestion nor all the diseases that afflict the alimentary tract. But we must keep in mind the fact that what a man eats does him good or harm, and when harm is done a little knowledge of the digestive organs and their functions will quite often enable a person to locate the difficulty and cure it without resorting to medicine or surgery.

The fact is the human body is built around a tube, and different portions of this tube perform different

functions that concern our well being. Of course the ideal plan is to live to a good old age without being conscious of the presence of this tube. Many persons prefer to remain ignorant of the digestive organs, preferring to eat what they like and suffer the consequences. To mention the stomach or bowels is a shock to their sensitive, fastidious natures. But the intelligent man or woman does not wait for a case of colic, acute indigestion or constipation to make a study of the digestive process and the foods that are best fitted to maintain a healthy, well-balanced mind and body. It is well to know just what happens in this tube every twenty-four hours. A man complains of stomach-ache, when the truth is, the pain is all in his bowels, or intestines. Another man grows suddenly alarmed over "heart trouble" and rushes to his physician only to be informed that there is nothing the matter with his heart; that his stomach is the chief offender. He is told that he is suffering from fermentation of the food in his stomach. This fermentation produces a gas which presses against the heart and interferes with its regular beating. He learns for the first time that there is only a thin membrane separating the stomach from the sac in which the heart performs its work. How much worry and suffering could be saved by selecting a food which the stomach could handle without fermentation!

Another person suffers from colic pains in the lower bowel, constipation or other forms of intestinal indigestion, and goes right on eating quantities of potatoes, carrots, beets, white flour bread, pastries and sweets, not knowing that such carbohydrate

foods, when not easily digested, become a putrefying mass in the intestines, throwing off gas which eventually poisons the blood. If he understood the functions of the intestines and had a knowledge of the chemistry of foods he would get sure relief by cutting down the supply of carbohydrates until these organs were restored to the natural tone and vigor.

The Alimentary Canal

Now, let us look at this tube around which the human body is built. It is called the alimentary canal. No human engineer ever built such a canal. The stomach, to which many people ignorantly attribute all their digestive disorders, is a very small part of it. This food canal is lined with mucous membrane, presenting at various points special groups of glands that give off the various digestive juices which act upon food. The tube is roughly divided into six parts—the mouth, the esophagus, the stomach, the small intestine, the large intestine (or colon) and the rectum. At certain points along this canal certain muscles are placed to regulate the movement of food during digestion. These “food gates,” or valves, have a most important relation to digestion. One of these gates at the upper part of the stomach is called the cardiac orifice; the lower one through which the food passes out of the stomach into the small intestine is called the pyloric orifice.

After being chewed and mixed with saliva the food passes into the stomach where the gastric juice acts

upon it. The stomach churns up the food and liquifies it, and thus fits it for passing into the small intestines and for absorption into the blood. This gastric juice is a wonderful mixture. Its principal job is to act on the proteids. When this liquified material, which is largely acid, passes into the small intestine it meets the alkaline intestinal juices and becomes alkaline. Gastric digestion is now followed by intestinal digestion, a process accomplished largely through the action of pancreatic juice, bile and intestinal juice. Intestinal indigestion is a much too complicated process for a detailed description in a book of this character. With digestion practically completed the residue enters the colon, or large intestine.

The large intestine is a muscular reservoir about five feet in length and is divided into five secondary reservoirs: the caecum, the ascending colon, the transverse colon, the descending colon and the rectum. This colon is a sort of human garbage box and is the cause of many of the more distressing, perplexing ailments with which the human body is afflicted. One of its important functions is to receive and to discharge from the body the unusable residue of foodstuffs. If these foodstuffs are of such a nature that they readily undergo putrefaction the colon contents become highly offensive and poisonous while still in the body. As a matter of fact real intestinal digestion takes place largely while the food is passing through the twenty-two feet of small intestine, the digestible starches, fats and proteids being rendered soluble by the digestive fluids and practically completely absorbed. The neglect of the colon, combined with the

use of improper foods, brings on those distressing ailments known as constipation and auto-intoxication.

Keeping the Bowels Clean and Healthy

"Have you brushed out your intestines this morning?" This would be to most persons a very strange and unusual salutation. It would provoke some comment as to the sanity or good taste of the person who asked the question. And yet such a form of salutation would be much more sensible and much more to the point than such questions as, "How do you do?" "How is your health?"

It is a long and rocky road that food must travel from the mouth to the end of the large intestine. The way is tortuous, and full of sharp turns. Here and there along the alimentary canal Nature has built safety valves or "food gates" so that there may be no backward movement in the process of digestion. The intestines alone are twenty-seven feet long. The small intestine, which is folded in a great mass of worm-like convolutions, is twenty-two feet long—the large intestine, or colon, is five feet long. The job of extracting nutriment from food is largely performed in the small intestine. The colon, as we have said before, is largely used as a receptacle for unusable waste. Metchnikoff and other scientists have announced their belief that the colon is a useless and often dangerous structure and that it may be advantageously dispensed with; but no man is going to part with his colon to prove or disprove their theories. We have inherited this colon, as well as the small intestine, from a long

line of ancestors, and we have to make the best of it—and the way to make the best of it is to keep it clean and healthy.

Some scientists believe that primitive man had no intestines. The little sac known as the stomach sufficed for all his digestive needs. But he was an outdoor animal in the habit of eating largely of leaves, and twigs, and roots, and coarse foods. He finally developed two curiously formed organs known as the small and large intestines. Whether this theory has a scientific basis or not, we do know that the herbivorous animals have longer intestines than have the carnivorous animals. The meat-eaters do not need long intestines, but man being both a carnivorous and herbivorous animal, must have a long intestinal reservoir for the vegetables he eats. It just happens that this reservoir, particularly the colon, is the source of a great deal of trouble. Some scientists aver that ninety-five per cent of all human diseases may be traced to putrefaction in the alimentary canal. Unless activity is normal large masses of ill digested food-stuffs collect in the colon where they undergo putrefaction, giving off toxins that are absorbed into the circulation where they exercise a paralyzing influence upon muscles and nerve tissue. This intestinal torpor leads to constipation, and this results in auto-intoxication, which means "self-poisoning."

The Human Animal Must Eat "Hay"

Now, it just happens that the intestines have to be brushed out at least once a day in order to prevent

self-poisoning and in order to insure the absorption of nutriment from the food. And this should be no burden to the sensible man or woman who wants to keep in good health—for Nature has provided the brush. It is a cellulose brush. You can't buy it in the brush factory. You will find it in nearly all the carbohydrate foods. Cellulose is a woody fiber that is present in nearly all vegetables.

You have to feed horses and cattle hay, but you don't think of the human animal as needing "hay." The fact is a certain amount of "hay" is necessary to keep man's intestines healthy and active. In other words, food must have bulk. It must have a certain amount of "hay" in it in order to distend the intestines sufficiently to cause them to contract with vigor and in order to stimulate the sensitive interior muscles of the intestines to normal activity. This muscular action in the bowel is called "peristalsis." It is only through this process of distention and contraction that the intestines are induced to pass along the food and finally eject it.

This cellulose, or "hay," is present in nearly all vegetables, but some vegetables contain more of it than others. Spinach is one of the best intestinal sweepers because it is not only full of woody fiber, but contains some salts that are very beneficial and are needed by the human body. Other foods that contain cellulose are wheat, lettuce, cabbage, string beans, celery, turnips, endive, watercress and all the greens, as well as most of the fruits. Undoubtedly the best form of cellulose is bran which forms the outer coat-

ing or hull of the wheat berry. It is both an intestinal sweeper and disinfectant. Doctor Kellogg says that everybody ought to consume two ounces a day of cellulose. This means three heaping tablespoonfuls of bran at every meal. It is not necessary, however, or even desirable, to take the bran alone. In two shredded wheat biscuits you get all the cellulose that is necessary to stimulate healthy bowel movement, and you get it combined with the rich, nutritive elements of the whole wheat grain, which is a perfect, complete food. With two shredded wheat biscuits every morning for breakfast most persons may be sure of a normal bowel movement.

All sorts of causes are given for constipation in the medical books, but the most common causes are wrong selection of food, habitual use of cathartics, and refusal to respond to the call of Nature for bowel movement. The latter is the most common cause of constipation in children who are so busy at study or play that they neglect the demands of Nature for evacuation of the bowel. It is also the commonest cause among men of sedentary employment who become engrossed in their work and forget to respond to Nature's demands. Children should be fed a certain quantity of cellulose each day in order to compel bowel movement at regular intervals and thus avoid constipation. The food should be nourishing, should contain a large amount of cellulose, a good amount of fat, plenty of fruit and salt and a moderate amount of proteid.

Keep your intestines brushed out every day with the proper kind of food; avoid drug laxatives; drink

a glass of water every morning on arising—preferably hot water; then take some exercise each day which tends to strengthen the muscles of the bowels. In other words, follow Nature's plan and avoid the many serious ailments that come from constipation and auto-intoxication.

Lo, the Poor Stomach!

If you saw a horse falling under a heavy load in the street would you rush out and try to help him by piling more on the load? And then if the horse didn't get up, would you apply a "black-snake" whip to his shanks?

As a plan for helping the horse to his feet this would strike most persons as brutal and absurd. And yet this is exactly the plan most people follow when the stomach gives signs of falling under the daily load that is heaped upon it. As a matter of fact it is the method that is followed in nearly all human ailments. The first recourse is to pills, tonics, syrups or digestive tablets, entirely ignoring the fact that the stomach has to handle all this dope before it can have any effect on the blood or tissues of the body. In other words, the poor, old, jaded stomach, already weary of its burden and crying for a rest, must have a little more work piled upon it—and then a "whip" is applied to make it carry the additional load. In the case of the stomach these "whips" generally contain something that stimulates an unnatural flow of the gastric

juices—a form of stimulation that is always followed by debility, depression and lowering of the tone or vitality of the organs.

Now, let us look at the stomach for a moment again and see what it has to suffer. The stomach is a vestibule standing at the entrance of that long and tortuous passage known as the alimentary canal. It is not a canal of itself, but a sort of conoidal sac, and being at the entrance of the digestive tube it naturally bears the brunt of all man's food follies. It is abused and maltreated in a thousand ways. It is the chief sufferer from man's dietetic ignorance. When food enters the stomach, after being mixed with saliva, it is subjected to a vigorous churning, and while the churning process goes on numerous tubes on the inner surface of the stomach discharge a colorless liquid called gastric juice which mingles with the food and dissolves it. In the stomach the food is arranged systematically in nice little layers, the indigestible portion remaining at the top near the cardiac orifice. The lower layers that are thoroughly dissolved are passed on through the pylorus into the duodenum where the food is mixed with bile from the liver and pancreatic fluid from the pancreas and in this way chemically prepared for the long journey through the intestines.

Foods for "Acid Dyspepsia"

How easy it is for a blind, blundering, ignorant man to interfere with and upset this delicate, complicated process! We therefore have a long catalog

of ills that come under the general head of Dyspepsia. It is manifestly impossible to consider in this booklet all these ills that come from the abuse of the stomach. Volumes have been written upon stomach dyspepsia and intestinal dyspepsia. One scientist of national renown has written a volume of four hundred pages on the colon alone—and yet the colon is only five feet long! Without doubt the most common form of dyspepsia is what is known as “acid dyspepsia,” which is caused by hyperacidity of the gastric juices. The symptoms are, coated tongue, sour taste in the mouth, heart-burn and eruptions of sour liquid and gas from the stomach. There is sometimes pain and soreness at the pit of the stomach. Most scientists who have given this subject any study are agreed that the most common of all the causes of acid dyspepsia is an inactive state of the bowels. When the bowels are inactive there is putrefaction of the retained, undigested food and the poisonous matters which are formed are absorbed in the colon and afterwards excreted into the stomach where, under the influence of these toxic substances, the stomach glands produce an excessive quantity of highly acid gastric juice.

Another cause of stomach dyspepsia is a low condition of nerve tone, as a result of which the stomach seems unable to empty itself, and the food instead of being pushed on through the pyloric orifice forms and gives off poisonous gas which disturbs the regular beatings of the heart. The quickest relief for gas in the stomach is a glass of water in which a heaping teaspoonful of bicarbonate of soda has been dissolved. This neutralizes the acid, brings up the accumulated

gas and sweetens the stomach. Then give the stomach a rest. Stop eating. Skip four or five meals. It will do you no harm. Give Nature a chance. Avoid flesh meats and all products of cane sugar. When you begin eating again go at it cautiously, following a corrected dietary in which fat forms an important part. Fat has the effect of hindering the production of gastric acid. If bread is eaten a liberal amount of butter should be taken with it. One or two tablespoons of olive oil at the beginning of each meal will have the effect of hindering the production of gastric acid. The following foods have been found very valuable in most cases of acid dyspepsia: buttermilk, egg-nog, gluten gruel, malted milk, yolk of eggs, zwieback, rice flakes, browned rice, shredded wheat biscuit, stewed prunes, stewed raisins and baked apples.

The Importance of Chewing

In another preceding chapter reference was briefly made to the process of chewing and insalivation by which food is prepared for the stomach. This is such an important step in the process of digestion that it calls for more extended treatment.

By insalivation we mean the mixing of food with saliva. An old saying has it that "the proof of the pudding is in the chewing of the string." All of which may be true when it comes to testing the flavor and quality of the savory compound that is enveloped in the bag which was the method of cooking puddings in the olden times. But the perfect digestion of the

pudding itself depends upon the chewing of the pudding. Now, there are all sorts of theories regarding mastication, from the theory of Horace Fletcher, who would chew every morsel of food until it becomes a liquid and slips down the esophagus without any conscious effort at swallowing, to those equally well known scientists who claim that it is not necessary to Fletcherize foods. It is a fact that a wolf does not chew meat before he swallows it. He is carnivorous. He has no "grinders" with which to chew. His teeth were made to tear flesh apart and he swallows it in chunks. The Scotch collie, a direct descendant of the wolf, does the same, but in the process of training and domesticating him we have made him partly herbivorous, and yet he has difficulty in eating any other foods than meat. As the digestive apparatus of the dog does not differ radically from that of the human the conclusion is natural that it is not necessary to thoroughly chew proteid food.

But man is an omnivorous animal. He eats everything but himself. Whatever may be the conflicting theories regarding the chewing of meats and other proteid foods, of one thing we are absolutely certain, and that is, that all foods that contain carbohydrates should be chewed, and chewed, and then chewed. In other words, such foods must be thoroughly mixed with saliva—and there is no other way to mix them with saliva except by thoroughly chewing them. And what is this saliva which many people think so unimportant? It is one of the most important of the digestive fluids, and the failure to thoroughly moisten foods with it is the cause of fermentation in

both stomach and intestines. The habit of bolting down food without thorough chewing not only makes it impossible for the organs of digestion to absorb all the nutritive material in the food, but ultimately leads to serious digestive disorders. The saliva is an alkaline liquid secreted by the salivary glands of the mouth and contains important elements which are necessary to digestion. The digestion of starch in the mouth begins immediately when the saliva comes in contact with it, and the action of this saliva, it is claimed, continues in the stomach for one or two hours after the food has been swallowed. There are two ways in which this saliva can be prevented from coming in contact with all particles of food. One is by bolting down the food without chewing. Another is by drinking copiously of water, or other liquids, while eating.

While some liquids are permissible at the table, it is a fact that the habit of washing down food with water dilutes the digestive fluids and thus lessens the efficiency of the salivary digestion. It is another interesting fact in connection with mastication that the thorough chewing of food develops sound teeth and healthy gums. Even the thorough chewing of food, however, will not develop sound teeth if the food is deficient in those elements that go to form teeth. The way to insure thorough insalivation, good teeth and good digestion is to eat crisp, coarse foods, like shredded wheat biscuit, that cannot be swallowed without thorough chewing. Shredded wheat not only encourages thorough chewing but it is rich in the mineral salts that make sound teeth.

How to Avoid Appendicitis

Of course if every person lived a normal, outdoor life, with plenty of oxygen to burn up all the fuel taken into the body and with plenty of exercise to keep the muscles of the bowels healthy and active, he would never need to know that he possessed an alimentary canal. He would never be troubled with digestive disorders of any kind.

But many persons have to pay dearly for the refinements of civilization. Nearly everything we eat is refined, and nearly everything we do is refined. We cannot hope to have the digestion of an Indian, and yet it is possible to overcome or avoid many of the ills which come from modern methods of living by a proper selection of food and a close observance of the laws of hygiene. One of the diseases of civilization that comes from our over-refined indoor life is Appendicitis. It is one of the penalties we pay for refusing to live the simple life and for neglecting to daily sweep out the poisonous waste material from the colon by eating coarse foods that contain cellulose. It is one of the penalties of over-eating and refusal to take proper exercise.

It is generally believed that every organ in the human body has a useful function to perform. By general agreement, however, there is one organ in the body that is useless and serves no physiological purpose except to yield an occasional handsome fee to a surgeon. This organ is the vermiform appendix. At the lower end of the ascending colon, in the right hand section of the abdominal cavity, is a pouch much

broadier than the rest of the colon. This is the caecum. The small intestine joins the caecum about an inch and a half above its lower part, leaving a pocket at the bottom to which is attached the vermiform appendix. It is a little tube about three inches long and about the size of a goose-quill. While the uselessness of this tube is generally conceded, there are scientists who maintain that it is "the oil-can of the caecum" and that its function is to lubricate the caecum and large intestine, thereby facilitating the passage of food through these organs. It just happens, however, that lots of people get along very nicely after this oil-can has been removed.

- Appendicitis is usually caused by the fecal matter becoming impacted in this tube and causing catarrhal inflammation of that organ, sometimes resulting in swelling, ulcer, perforation or gangrene. When the mass of food lies in the caecum until fermentation and putrefaction set in Nature makes violent efforts to pass it along through the large intestine, but when her efforts are foiled some of this putrefying mass is certain to get into this little tube, and as there is no way for it to get out it is certain to cause disturbance.

There are many stages in the development of appendicitis, from the ordinary appendicitis to acute appendicitis. It is not the province of this book to tell you how to cure appendicitis. As a matter of fact the only cure for real, acute appendicitis is the knife of the skilled surgeon. In certain manifestations of the disease, however, it is possible to bring about the restoration of the natural functions of the caecum without an operation. The purpose of this book is

prevention. When the symptoms of appendicitis are plainly apparent it is best to lose no time in consulting a physician. The symptoms may be roughly described as follows: pain of a dull, stabbing or stinging character on the right side below the groin, followed by high temperature, chill, and sometimes vomiting. It may be temporarily relieved by heat, by the escape of gas or by bowel movement, with complete abstention from food.

The way to avoid appendicitis, as well as the ailments that come from an impacted caecum and colon, is to eat those foods that have enough bulk to them to insure complete bowel evacuation at least once a day. A splendid habit is to drink before breakfast each day a glass of water. This internal bath is a harmless way of washing the poisons from the stomach, liver, kidneys and bowels, thus cleansing, sweetening and refreshing the alimentary canal before putting food into the stomach. For every ounce of food that is converted into tissue, heat and energy nearly an ounce of waste material must be carried out of the body. If this waste material is not eliminated day by day it forms poisons, gases and toxins which are absorbed and sucked into the blood. Drink plenty of liquids, eat sparingly of meat and make the diet consist largely of vegetables, such as spinach, lettuce, rice, coarse cereals, pineapple, apple-sauce, nuts, prunes, dates and other fruits and wheat bran. A diet of shredded wheat biscuit with prunes or other laxative fruits and some green vegetables, with plenty of liquids, is almost a certain preventive of appendicitis and other intestinal ailments. When there is a

persistent tendency to constipation a tablespoonful of olive oil added to this diet at every meal is far better than drug cathartics. Prevention of appendicitis is easy for the man or woman who is willing to live in harmony with Nature's laws. The cure of appendicitis is not so easy. It is a job for the physician and surgeon.

How to Build Good Flesh

The poor human animal is the football of faddists—followers of all sorts of strange dietetic notions that have no scientific basis. He is tossed about on the turbulent sea of his own unbridled appetite without scientific rudder or compass. If he is lean and lank he wants to get fat, and he proceeds to eat great quantities of food that have very little fat-making material in them, but which load the alimentary canal and impose a heavy burden on the liver and kidneys. If his skeleton is wallowing in layers of tallow he wants to get lean and he proceeds to starve himself instead of eating plentifully of foods that make lean muscle instead of fatty tissue.

And so we have the spectacle of a man or woman eating daily large quantities of food and growing thinner and thinner, all of which brings us to a consideration of the dangers of under-feeding. In our contact with human beings day by day we see persons who eat voraciously three times a day and who never seem to gain in weight. The more they eat the thinner they get. As a matter of fact this business of getting flesh,

or getting rid of excess adipose is a question of nutrition—not of quantity in food. While the fleshy persons are searching diet books and trying all sorts of foods to get thin we must not lose sight of the fact that thousands who apparently have plenty of food are suffering from semi-starvation. Children brought up in homes where no intelligent thought is given to the nutritive value of foods, age rapidly, soon begin to look like little old men or women. They seem to be eating all the time, but their food gives them distended intestines, with all their blood-poisoning possibilities, and does not supply the kind of nourishment their growing bodies need.

Nature never intended man to live on vegetables alone any more than on meats. We are both carnivorous and herbivorous. As we said in a previous chapter, the most important of foods needed for our nourishment are what is known as the proteid group. These consist of the meats, such as beef, fowl and fish; the dairy products—butter, cheese, buttermilk and eggs; the legumes—peas, beans, lentils; the nuts—almonds, pecans and walnuts. A purely vegetable diet would include all these except the legumes, which also contain carbohydrates. Now, if we attempt to live on vegetables alone a large amount of them must be consumed in order to get enough nutriment from them to supply energy and build tissue. We must not overload and overwork the digestive organs. This excess baggage imposes a heavy drain upon the vital organs, particularly those whose function it is to eliminate poisonous wastes from the body. The kidneys are unable to eliminate the uric acid which is one of the products

of the legumes, so along comes rheumatism to torture the victim. The large bulk of other vegetables with which the intestines must be packed brings on dyspepsia and fermentation. Leanness and emaciation are generally due to a weakened appropriating or assimilating power of the alimentary canal which is brought on by persistent stuffing with the wrong kinds of food.

To restore healthy tonicity to the centers of nutrition it is necessary to introduce into the cell life some agent that will arouse the dormant digestive energies. Begin the day by drinking one hour before breakfast a glass of water with a little lemon juice squeezed into it; then for breakfast eat a combination of easily digested proteids, such as a soft boiled egg, with two shredded wheat biscuits served with hot milk and a little cream. This breakfast may be varied by substituting bacon for eggs, with a little honey on buttered toast. For the heavy meal of the day eat roast chicken, or roast turkey, wild fowl, fresh or salt water fish, with such vegetables as carrots, turnips or parsley, cauliflower, celery, spinach, egg-plant, string beans, unpolished rice, corn-meal mush, shredded wheat biscuit or baked potatoes. A glass of fruit juice should be sipped with this meal. For dessert eat prunes, sliced bananas, baked apples or stewed fruits of any kind.

The light meal of the day should be preceded by a teaspoonful of olive oil and should include some vegetable salad made up of lettuce, celery and parsley. With this eat toasted triscuit or shredded wheat biscuit, or a slice of stale, hard, dry or whole wheat bread.

English walnuts or blanched almonds or cottage cheese may be eaten to take the place of meat. A good beverage to sip slowly after this meal is a glass of malted milk or a cup of hot chocolate.

This sort of a diet, combined with physical exercise, deep breathing and cold towel rubs will soon bring healthy tissue, warmth and strength to the thin, flabby emaciated body.

Getting Rid of Fat

The world is full of good things to eat. Fuel for the human furnace is supplied in vast abundance and variety. Some of this fuel food is composed largely of fat-making material. Some of it makes muscle and bone, some of it supplies energy and heat without making tissue. Each person is the fireman who feeds his furnace—and in ninety-nine cases out of a hundred, he selects his food without the slightest regard to its fuel value. When we reflect that his energy, his bodily warmth, his ability to do things and think things, and enjoy things, are all a matter of nutrition his persistent ignorance of food values is amazing.

And that is the reason the fat man goes right on being fat; and the woman who hobbles along with her skin tightly stretched over a vast chunk of fatty tissue goes right on accumulating more flesh. A famous writer has said that "God enveloped man's body in a skin to see how tight he could stretch it without bursting it."

Vance Thompson says: "To the scientist there is nothing so tragic as the sight of a fat man eating a potato."

In this sentence is embraced in compact form all there is to the question of fat reduction. It is the answer to thousands who are searching for cures for obesity. The hundreds of volumes that have been written on this subject are all merely an elaboration of the dietetic truths that are suggested by this sentence. Very stout people are so hampered by fat that the organs of the body cannot do their work in a normal way. The heart has to make unusual efforts to pump the blood. The lungs are crowded by deposits of fat, and muscular action throughout the body is weakened.

The way to reduce fat is to eat less fat-making foods. There is no other safe, sane or healthful way. Of course you can reduce flesh by fasting; you can boil or bake it out in Turkish baths—you can drug it out with "obesity cures." But these methods leave the body shriveled, wrinkled and uncomely. They leave an emaciated body to rattle around in a fat man's skin. These methods are not only ineffective, but they are injurious. Thousands have tried to walk off superfluous flesh; but it will not walk off. Men and women have rolled on the floor in calisthenic contortions and have indulged in all sorts of vigorous physical exercise merely to go back to three meals a day with a more voracious appetite than ever—and this voracious appetite must be satisfied with more stuffing.

There is a natural and rational way—a scientific way—to get rid of burdensome adipose. The way to

get thin is to eat—not fast. “Horror of horrors!” exclaims the fat woman. “How can a person expect to throw off flesh and get back to the comely proportions of girlhood by eating?”

It is all simple enough, and the pleasant thing about it is that it is physiological and in harmony with natural law. Corpulency is not only due to over-eating—it is nearly always due to eating in excess of the foods that are rich in carbohydrates and fat. The average diet consists largely of fat-making foods, beginning with thick, starchy soup and going down through the list of greasy meats, potatoes, macaroni, peas, white bread and butter, cream, cheese, and ending with puddings and sweets. Such a meal, especially when accompanied by beer or wine, turns the body into a fat factory. A fat person who wishes to grow thin should eat a great deal of such foods as lettuce, celery, spinach, cabbage, onions, chard, kale, corn-meal, graham bread, shredded wheat biscuit, buttermilk and eggs. One should eat sparingly of meat, and if he feels the loss of fat which he usually gets with the meat he should eat a little more butter, or a little olive oil. Some people who make shredded wheat biscuit a regular part of their daily diet have been known to get fat, but this is not because shredded wheat is a fat-making food. Shredded wheat supplies just enough muscle-building and just enough fat-making material to develop the perfect human body, and if a person takes on excessive fat while eating the biscuit it comes from the cream and other fat-making foods that are eaten with it.

Summing it all up in one sentence: eat less food; avoid starches, sweets and fats; take moderate

exercise; practice deep breathing; take a cold plunge and rub every morning—if your heart will stand it; drink no liquids while eating.

“Catching” Colds and “Curing” Colds

“Some little germ will get you if you don’t watch out.” This is no joke. It is true that the germ theory of disease has been sadly overworked. Millions of germs are being daily found where there are no germs. Making fun of Mr. Germ and scoffing at bacteriologists, however, will not cure anything and does not give comfort to the poor fellow who is sneezing his head off with influenza.

Science has established a certain number of facts regarding the germ origin of disease. Among them none is more certain than that the common, ordinary cold, influenza and grippe are caused by a peculiar germ which attacks the mucous membrane when the body is unprepared for battle. These germs are lying in wait in the nasal passages ready to begin business as soon as the vitality or power of resistance is lowered through improper food selection, the abuse of the digestive organs or the breathing of foul, impure air.

Catching cold is therefore largely a matter of nutrition and hygiene, and that is the reason we give it consideration in this book. When a person catches a cold he is merely catching a germ which has been waiting a favorable opportunity to set up inflammation, chills, fever, weeping eyes, sneezing or watery nasal discharges. Any satisfactory discussion of the

subject must embrace two phases: how to avoid catching cold, and how to cure a cold after you have caught it. Chapters on how to avoid catching cold have only academic interest for the poor fellow who is weeping, and sneezing and coughing.

The way to avoid a cold is to keep the body in top-notch condition by proper selection of nourishing, easily digested foods and by keeping out of congested public places where the air is bad, or where there is an epidemic of gripe or colds. If the fellow who sits next to you in a street car is sneezing or coughing, change your seat, or better still, get off the car and take the next one. Five cents is cheaper than the ordinary cold. You may be in condition to throw off the germ, but it is best to take no chances. A little fatigue, or indigestion, or some injury of the mucous lining will present a favorable field of operation for the cold germ, and you may be sure he will take advantage of it. He will enter the body through the skin, or through the nose.

To avoid catching cold eat nothing and drink nothing that lowers the bodily vitality or tone. Change the clothing according to the weather and your feelings—not according to the thermometer. Don't wear heavy clothing in a warm room and then go outdoors in the same clothing. Exercise moderately in the outdoor air as much as possible. If your heart will stand it, take a cold plunge every morning and a brisk rub with a Turkish towel.

Now, how shall a person get rid of a cold after he has caught it? Without doubt the most miserable

person on earth is the person who is suffering with a cold in the head. In his desperation he is apt to rush madly into drug stores and buy everything that is advertised for colds. He will run the whole gamut of pills and cough syrups. He takes first one remedy and then another until the cold finally goes down into the throat, bronchial tubes or lungs, and he finds himself on his back with bronchitis or pneumonia.

With the first symptom of a cold in the head all business should be suspended. It is better to give up at once and go to bed and if there is any temperature call a physician. This is cheaper in the long run than a six or seven weeks' illness of pneumonia. Outdoor air merely irritates the inflamed mucous membrane and aggravates the disease. Trying to cure a cold while running around in the raw outdoor air that is heavily charged with cold germs is dangerous business.

For the quick relief of the nasal passages a good plan is to inhale steam by holding the head over a bowl of hot water to which a little witch hazel or camphor has been added. To get the full effect of the steam in the nostrils, cover the head and bowl with a towel. After ten minutes of this treatment take a hot sweating bath. Take it in your home, in the room where you are going to stay—not in the Club or in the public bath. Place the feet in a tub two-thirds full of water as hot as you can bear it. To help bring on the necessary perspiration put a half cup of mustard in the water and also sip a bowl of hot lemonade while the feet are in the bath. After a good perspiration has been secured the patient should be given a cold rub by means of cold water applied with

the hand, followed by vigorous rubbing with a Turkish towel. The neck and chest should be rubbed with camphorated oil. Then go to bed and stay there until the last vestige of the cold has disappeared.

Keep the bowels open with food laxatives such as shredded wheat biscuit with stewed prunes or baked apples; drink plenty of water and fruit juice and stick to a low proteid diet. An excess of indigestible food in the alimentary canal will undergo putrefactive changes and will give off poisons which predispose the body to colds. It is therefore important to keep the bowels clean and active. All foods that are rich in proteid impose an extra burden on the eliminating organs which should be avoided. Such foods are meats, eggs, beans, peas and lentils.

How to Postpone "Old Age"

A wise old Doctor has said, "a man is as old as his arteries." In other words, a man's age is not a matter of years, but a matter of arterial activity. Whether a man is old or young at fifty depends upon the condition of his arteries—and the condition of his arteries depends upon the kind of life he has lived and the food he eats. Like all sayings of this character, this one about a man being as old as his arteries is subject to modification. A man might inherit certain functional weaknesses in other organs and still have good arteries—and yet it is difficult to imagine the existence of any disease of any organ without its having an effect upon the arteries.

Let us examine the work of the arteries and discover their relation to health and long life. The heart pumps blood into the arteries; the arteries carry the blood to the capillaries; the veins carry it from the capillaries back to the heart. It is while in the capillaries that this blood from the arteries performs its real function of giving to the tissues the substance they require for their nourishment. In other words, it is the arteries that carry the blood to the millions of little cells out of which the body is made. These arteries are made of very elastic fibrous tissue which permits of considerable dilatation. This elastic property of the arteries is essential to the proper performance of their functions. In old age the arteries lose much of their elasticity and begin to harden and contract. This hardening of the arteries is known as "arteriosclerosis." This interferes with the proper circulation of blood in the tissues, and consequently the tissue changes which belong to old age are produced.

Now, it has been found by experiments that this condition of the arteries may be brought about in middle life by the use of alcohol and by eating an excess of high proteid foods. Constant indulgence in alcoholic stimulants and the excessive eating of meat, eggs and other high proteid foods destroys the elasticity of the arterial walls. This elasticity is necessary to take care of the pressure of the blood upon the walls of the arteries. The heart is vigorously pumping blood into these arteries. They constantly receive an extra supply of blood from the heart when there is not sufficient time between the heart-beats for the

blood to pass into the capillaries. It is this elasticity of the arteries that enables them to accommodate themselves to the supply of blood forced into them.

The question is, can a person prevent hardening of the arteries and thus postpone old age? Discarding all the conflicting theories of the scientists, we can be certain of one thing, and that is that alcohol and a high proteid diet promote hardening of the arteries. It is one of the interesting things connected with man's nutrition that in old age he will maintain health and strength by returning to the diet of his childhood. In extreme old age the nearer we adhere to the simple bread and milk diet the better and healthier we are and the longer and more satisfactorily we will live. It follows, therefore, in order to postpone old age and prevent the hardening of the arteries we should limit the proteid elements in our diet and make milk an important factor in our daily nutrition.

A proper diet list for persons who have a tendency toward arteriosclerosis should include soft boiled eggs, broiled fish, broiled chicken, turkey, partridge, oysters, an occasional lamb-chop, lettuce, spinach, celery, string beans, squash, cauliflower, onions, green corn, shredded wheat biscuit, milk or butter-milk, oranges, grapefruit, stewed peaches, apricots, plums, prunes, grapes and baked apples. Avoid all alcoholic stimulants and drink plenty of distilled water between meals. A glass of hot water should be drunk on arising in the morning. Eat slowly and thoroughly masticate the food.

The Importance of Deep Breathing

"Now, what has deep breathing to do with the food question?" you ask. It has everything to do with it. The man who wants to have perfect digestion, who wants to get full fuel value from his food, who wants to think clearly and quickly, who wants to enjoy his fullest mental and physical powers, will not be satisfied with ordinary respiration. He will fill his lungs with pure, clean air several times a day.

Let us consider for a moment the relation of deep breathing to health and strength. When a man or woman understands what the lungs do the reasons for deep breathing will be quickly apparent. It is the business of the lungs to supply the body with the oxygen that it requires for tissue-building and through this oxidation of food to provide the heat that is essential to keep the body warm and to supply the energy required to keep the human machinery at work; to rid the body of the excess poisonous carbon dioxide gas resulting from this oxidation; to help equalize the temperature of the body; to rid the body of excess water. In other words, the principal function of the lungs is the diffusion of oxygen from the blood vessels into the tissues.

Oxygen is the basis of life. It gives the blood its sparkling redness. It is oxygen that makes it possible for the food we eat to be transformed into bone, muscle and tissue. The human body can get along without food for a few days, but it cannot get along without the oxygen in the air. If there is no oxygen there is no combustion of the fuel in the furnace.

If you cut off the supply of oxygen to the human boiler the vital energies will go out.

"A hundred deep breaths a day" is recommended by a well known physician as a prescription for tuberculosis. In ordinary breathing only about ten per cent of the lung content is changed at each breath. In deep breathing every air cell in the lungs is filled. The whole lung is forced into action. The circulation of the blood in the abdomen is more efficiently maintained, thus equalizing circulation throughout the body. So long as pure air is so necessary to good health and the proper oxidation of your food you will see that ventilation of living and working rooms becomes an important matter. Bed-rooms should be large, with plenty of windows, and these windows should be wide open at night in Winter and Summer. There should be a cross-current of air in the room whenever practicable so that the fresh air may come in on one side of the room and go out at the opposite side. Don't be afraid of drafts. The popular idea that colds come from drafts is greatly exaggerated. The air should never be allowed to become stagnant. If there is no natural movement in the air it should be put in motion by artificial means.

Deep breathing should be deep, slow, rhythmic and through the nose—not through the mouth. A good plan is to fill the lungs full of air while walking outdoors and hold it for a few moments. Then exhale slowly while walking. Do this ten or twenty times in the forenoon and afternoon and just before retiring at night. The feeling of warmth, mental exhilaration and physical energy which comes from deep breathing

ought to satisfy any one of its physiological value, and ought to impress any person with the vital relation of deep breathing to health and good digestion. When you take in oxygen to burn up your food, however, be sure the food you eat can be oxidized. Don't take in a lot of clinkers and slag. Don't take in foods that require you to force the draft. Eat the foods that contain just enough proteids, just enough carbohydrates and just enough fats to keep you in top-notch condition for the work of the day.

The Heat-Value of Foods

If a woman who has charge of the food supply for a family should go into a public market and ask for three thousand calories of food she would, of course, excite great amazement and consternation among the pudgy, well-fed chaps who sell turnips, potatoes and beans by the pound. Incidentally she would probably excite some reasonable apprehensions as to her sanity.

At the rate of the present dissemination of intelligence on the food question, however, it is easy to predict that such a demand twenty years hence might be understood and even complied with. In the meantime, we have to leave such things as calories to the chemists. Some knowledge of calories, or heat-making units in foods, however, is essential to even an elementary understanding of nutrition. We have seen that the carbohydrates and fats are heat-making foods. They supply heat and energy for driving the human machinery. This heat or energy is given off in the

process of burning or oxidizing our food. The body has often been compared to a blacksmith's forge, the lungs being the bellows and food the coal. It is a fact that the food we eat is actually burned in the body by the aid of the air we breathe. By far the greater part of our food is capable of being used as body fuel.

The chemist has a way of measuring this heat that is derived from food, and the unit of measurement is called a "calorie." The common definition of a calorie is "the amount of heat required to raise the temperature of one kilogram of water one degree centigrade." It is nearly the same as the amount required to raise one pound of water four degrees Fahrenheit. Expressed in mechanical force, it means that a calorie would raise a ton about 1.54 feet; or that it is equal to 1.54 tons.

Now, this doesn't mean much to the man who is not a chemist. The questions he is most interested in are: how many calories does a healthy man require in his food every twenty-four hours; and what foods furnish the required number of calories?

The ordinary man of sedentary life needs about 2,500 calories per day. The larger a person is, or the more muscular the work he does, the more calories he needs. If a man takes more calories in his food than he needs, more than are used by the body, the excess accumulates in fat or tissue. Thus if 3,000 calories are taken in each day in food and the calories used up are only 2,500, then 500 must be retained and accumulated in the shape of fatty tissue. The number of calories required in food is therefore a matter

of temperament, the size of the body, daily occupation and the season of the year. The quantity of food should be decreased in hot weather when fewer calories are needed to sustain the heat of the body. If a man's weight is about right for his stature, as shown by the ordinary life insurance table, and if his endurance and well being and health are maintained, he may reasonably assume that he is taking the right number of calories in his food each day.

The foods that yield a high number of calories per pound are: roast beef, roast leg of mutton, smoked ham, butter, cream cheese, cornmeal, oatmeal, rice, shredded wheat biscuit, macaroni, beans, peas, almonds, peanuts, Brazil nuts and soft-shell walnuts. The fats, starches and sugars rank especially high in number of calories per pound.

The foods that are low in heat-making power are fresh and salt fish, oysters, eggs, cows' milk, boiled rice, chicken, asparagus, peas, cabbage, green corn, tomatoes, apples, bananas, oranges, peaches and strawberries. Speaking in a general way, the person who has learned how to select the foods that supply just enough proteids, just enough carbohydrates, just enough fats and just enough calories to keep him at the proper weight and in good working condition has solved the secret of health and long life. In selecting shredded wheat biscuit as a sample of a well-balanced ration we find that it contains 10.5 proteid, 77.9 carbohydrates, 1.4 fat, 2.1 mineral matter and gives a fuel value of 1,700 calories per pound. This means that if a man ate two or three shredded wheat biscuits three times a day and ate nothing else he would have

enough proteid to repair waste tissue and enough carbohydrates to furnish heat and energy for his body for the day's work.

Uric Acid and Gout

The burning of coal in the furnace results in a certain amount of waste product—ashes and the poisonous gases that go up the chimney.

It is the same with the human furnace, only the process of combustion is much more complicated and the waste products are more poisonous. When food is burned in the body the process of oxidation gives off poisons that must be eliminated or there is distress and disease, with loss of physical and mental power. Nature has provided "eliminating organs" for getting rid of these poisons. We have already considered the work of the intestines and other excretory organs; but without doubt the most delicate and complicated function is that performed by the kidneys and the organs connected with them. In the healthy man who eats the right kind of food in proper quantities and does not abuse his body by intemperance in eating and drinking, these eliminating organs will get rid of all the waste products of fuel consumption.

It is the work of the kidneys to eliminate practically all of the protein waste, nearly all of the salts and about four-fifths of the water that is secreted. As the kidneys are profoundly influenced by the kind of food one eats, it follows, of course, that many of the diseases of the kidneys may be corrected through a

proper selection of food. Among these diseases that may be directly influenced and sometimes cured by a proper diet are diabetes, gout and rheumatism. Urea, which constitutes nearly one-half of the solid constituents of urine, and uric acid, are the media by which the largest quantity of nitrogen is excreted from the body. As these two vehicles excrete nitrogen it follows that excessive eating of nitrogenous foods, or proteids, imposes a heavy burden on the kidneys and as the excretion of uric acid is diminished it accumulates in the blood and tissues. This results in gout, rheumatism and other uric acid ailments. The presence of an excess of uric acid in the blood, in fact, may be caused by anything which prevents its elimination, such as indigestion or cold, or any cause that impairs the kidney function. This gradually causes a deposit of uric acid salts in and about the joints, causing excruciating pain in the great toe, heel, instep and the muscles of the back. The chief causes of gout and rheumatism are excessive eating of meat, over-eating and the use of stimulating condiments, beer, wine, alcoholic liquors and high living in general. Thus it is apparent that a person who eats meat freely must store up an enormous quantity of uric acid in his body. The attack of gout is simply an effort on the part of the body to get rid of some of its surplus of uric acid. To correct this ailment a low proteid diet should be adopted. This is a dietary from which meats, eggs, peas, beans and cheese should be excluded. The diet should consist of fresh fish soups, clear vegetable broths, raw oysters, boiled fresh fish, fat, bacon, broiled chicken, shredded wheat biscuit, graham bread

or rolls, dry toast, mashed potatoes, string beans, spinach, cabbage, cresses, lettuce, celery; for dessert plain milk puddings, rice puddings, or stewed fruits.

A Rational Diet in Diabetes

In diabetes the body, owing to a number of conditions, has largely lost its ability to utilize sugar, or starch in sugar. The average man eats about one pound of sugar a day, most of it in the form of starches. This is converted into sugar in the body by the process of digestion. When a person is unable to properly utilize the sugar in his food, a portion of the sugar, sometimes all of it, appears in the urine as sugar. This may result in what the physicians call "temporary glycosuria;" or it may eventuate in real diabetes mellitus.

The blood in good health maintains a constant per cent of glucose. If this percentage is exceeded it is injurious to the tissues. This happens when a large quantity of sugar is eaten either in candy or in other carbohydrate foods. The real cause of diabetes is traced to the pancreas which performs a very important function in the oxidation of the glucose in the tissues. In mild cases of diabetes the condition can be controlled by lessening the amount of carbohydrate food. It is therefore important that a dietary for the diabetic patient should consist of foods with a very low percentage of carbohydrates. When a normal person in good health eats more sugar and fat than he requires to maintain the heat and energy of his body the surplus is deposited beneath the skin in the form of fat.



With a diabetic person, however, the ability to convert sugar into fat and store it up for future use in the form of glycogen is impaired or wholly lost. Diabetes was formerly regarded as an incurable disease and diabetic persons were abandoned as hopeless. In later years, however, the adoption of new methods of treatment has checked the disease, and in thousands of instances has effected a complete cure.

The necessity for feeding diabetic patients foods that have a low percentage of carbohydrates naturally suggests the question as to what can be supplied as a substitute for these carbohydrates. The importance of this question will be obvious when one reflects that carbohydrates generally constitute about three-fourths of our total daily supply of food. As proteids also produce some sugar, we are driven to the conclusion that food that is rich in fat would be a rational diet for a person suffering with diabetes. While shredded wheat contains carbohydrate, it has been found by actual tests in hundreds of cases that a daily diet of shredded wheat biscuit with bacon fat makes an ideal food for diabetics. The fact that the carbohydrates in shredded wheat biscuit have a favorable influence on the disease is attributed to the particular form in which we find the carbohydrates as a result of the steam-cooking, shredding and baking process.

In the making of shredded wheat biscuit it must be kept in mind that all the gluten in the whole wheat grain is retained and presented in an easily digestible form. As a matter of fact just what can be taken by a person suffering from diabetes must be found

through actual tests from day to day. If sugar disappears from the urine on a certain diet, that is obviously the diet on which he should subsist. If sugar reappears in the urine when the smallest quantity of carbohydrate is added to the food, it is plain that the diet of that particular patient must consist exclusively of proteid and fat. All of which means that there is no such thing as a "diabetic diet." In every case the disease must be treated on its merits and in accordance with careful tests. In a general way, however, the fatter meats and fishes are to be preferred, while cheese and all milk products are regarded as harmless. Eggs scrambled in plenty of butter is an acceptable diet, and in most cases great reliance is placed on gluten bread, gluten porridge and any other wheat products that are rich in gluten. Green vegetables contain so little carbohydrate that they may be allowed in every case. In addition to green vegetables, such as string beans, spinach, kale, lettuce, asparagus, celery and cresses, fish of all kinds is allowed, also fat beef, mutton, ham, bacon, poultry, sweetbreads; custards, jellies, creams and the various nuts that are rich in oil. The drinks allowed are tea or coffee (without sugar), milk and pure water. All sweet and dry fruits must be avoided.

Nature Has Provided a Perfect Food

We have seen how most of our ailments, in fact most of our diseases, come from mistakes in the selection of food. We have seen how an excess of carbohydrates encumbers a man with a lot of fat; how the

eating of food that contains too much woody fiber (cellulose) imposes a heavy burden on the digestion and overworks the digestive organs without yielding the proper amount of nourishment; how the eating of too much proteids, such as meat, eggs, beans and cheese, overtaxes the kidneys and liver, bringing on diabetes, rheumatism, gout, uric acid troubles and hardening of the arteries.

All of which emphasizes the wisdom of a mixed diet and a carefully selected, well-balanced ration. The question naturally arises, has Nature provided a food that contains the proper amount of proteids, carbohydrates, fats, mineral matter and cellulose so that a person might live indefinitely on that one food without eating any other food, and keep in good health, with all the physical and mental energy needed for the ordinary employments of life?

Fortunately, Nature has provided such a food. It is wheat—not the white center of the wheat berry, or the outer coats, but whole wheat. By common agreement of nearly all chemists and dietetic experts, wheat is the one perfect, complete food given to man. It has in it in well-balanced proportion just enough proteids, just enough carbohydrates and just enough fat and mineral matter to properly nourish the human body; also just enough cellulose (bran) to stimulate peristalsis and thus keep the bowels clean and healthy. It contains all the chemical elements found in the human body. Expressed in terms of fuel value a pound of wheat when properly cooked will give to the human body 1,700 calories of heat. In other words, if a man ate a pound and a half of whole wheat in twenty-four

hours he would have all the calories needed to supply all the heat and energy required by the human body for work or play.

A printer and book-binder who had been injured in a street car accident and who was financially unable to provide the meals he was accustomed to eat, wrote Doctor Harvey W. Wiley a letter in which he asked if he could live on wheat alone. In reply Doctor Wiley said, "Yes, I think you can live on wheat alone, in the form of whole wheat products, but not on white flour alone." At the same time Doctor Wiley called his attention to the monotony of such a diet and suggested that it would add very little to the cost of living and would give variety to the daily fare if he would add milk to the wheat—a combination that is without doubt the most perfect and most easily digested of all food combinations. In another article on Nutrition, Doctor Wiley says: "In calling attention to foods which are rich in protein wheat naturally takes first place. Wheat is a complete food in itself, containing all the elements necessary to human nutrition." In another part of the article he says that the protein in cereals costs much less than the same amount of protein in any other food.

Wheat differs from every other cereal in that the greater portion of its proteid is what is commonly known as gluten. It is this gluten which gives to wheat flour its value for baking purposes above that of the flour of any other cereal. Other cereals, such as oats, contain protein, but there is no other cereal which begins to compare with wheat in its uses as an ideal substance for making bread. This gluten is

easily digested, thus giving to wheat bread and wheat products one of its high qualities as a nourishing material.

Let us examine the structure of this wonderful grain which has been man's staff of life for four thousand years. If a grain of wheat be cut into thin slices and examined under a microscope it is found to consist of the following parts: the germ, or embryo; the kernel, or endosperm; the bran or outer envelope.

The germ consists of a mass of small cells that are rich in proteid and fat. This is simply the young plant which furnishes the nourishment for a new stalk of wheat. The kernel, or endosperm, consists of the starchy center of the wheat grain. It is the nutritive material which feeds the embryo. The bran, or outer envelope, is mainly composed of cellulose arranged in three layers. The outer layer consists entirely of fibers of cellulose impregnated with mineral matter. The middle layer consists chiefly of small cells full of pigment which gives to the bran its brown color. The center layer, sometimes called the cereal layer, consists of a single row of large cells full of a granular matter which is very rich in proteid.

Preparing the Whole Wheat for Digestion

Now that we have seen the wonderful adaptability of the whole wheat grain to the complete nourishment of the human body the question arises, "How shall we prepare this food so that its nutritive elements may be completely digested and converted into healthy tissue, brain and bone?" Raw wheat is not a suitable

food for the human being; it would be only partially and imperfectly digested. Most scientists who have made a study of the various processes of preparing wheat for the human body are agreed that the shredding process by which shredded wheat biscuit is made is the most perfect process ever devised for making the whole wheat grain digestible in the human stomach. By this process the whole wheat is steam-cooked until the starch cells are broken down and made soluble. The softened wheat grains are then drawn out into fine, filmy, porous shreds. These shreds are formed into biscuits, or little loaves, and then baked in a coal oven. This baking still further dextrinizes the starch in the wheat berry, rendering it more soluble and more easily digested. The bran, which is mostly cellulose and is also rich in the mineral matter that is needed to make bone and brain, is scattered along the shreds in infinitesimal particles where it serves the useful purpose of stimulating bowel movement.

The Reasons for Shredded Wheat

While shredded wheat biscuit is made of the whole wheat, it must not be confounded with whole wheat flour bread. It is not made of whole wheat flour. Moreover, it is made by an entirely different process. It is the gluten in the wheat berry that enables the baker to make bread out of the flour. This gluten when mixed with water forms a doughy mass, and in the center of this mass is placed a yeast cake which liberates carbonic acid gas which permeates the gluten

cells and "raises" the bread. In making shredded wheat biscuit no yeast, baking powder or chemicals of any kind are used. Moreover the wheat is steam-cooked before it is baked. Every shred is crisp and porous. It does not form a doughy mass as soon as the saliva touches it. In eating shredded wheat biscuit the porous shreds are quickly penetrated by the saliva and other digestive fluids. The crispness of the shreds compels thorough chewing and thorough insalivation, which is the first process in digestion.

Shredded wheat biscuit was born of a human need. A company of capitalists did not get together and form a corporation for the manufacture of shredded wheat. The original inventor had no thought of making money out of it. The pangs of dyspepsia and ill health made him a student of dietetics and when he found that cooked whole wheat agreed with him, that he obtained health and strength from a whole wheat diet, he began to devise a plan for giving the benefit of his discovery to the human race. He became convinced that in the whole wheat grain Nature had given to man a complete, perfect food and that a wheat food that did not contain the entire wheat berry was an impoverished, incomplete food. Out of this conviction there was evolved Shredded Wheat Biscuit, the one universal, cereal food, that is now eaten in every portion of the habitable globe.

Having devised a perfect process for preparing the whole wheat in a digestible form—a process that made it possible to market it under all conditions and in all seasons, his next thought was to build a model factory in which it could be made under ideal conditions.

He would build a factory whose architectural plan and whose sanitary appointments made it a fit home for the cleanest, purest, most nutritious of all cereal foods; a factory that could be open to visitors from all lands; a factory that would be as far above ordinary factories as shredded wheat is above all other foods. And so we have "The Home of Shredded Wheat," a beautiful palace of light, on the shores of the Niagara River at Niagara Falls, in which Shredded Wheat is made. From this parent plant have grown three other factories, one in Niagara Falls, N. Y., one in Niagara Falls, Canada, and one in Oakland, California, all of which are models of steel and concrete construction in which are exemplified the highest ideals of cleanliness and sanitation.

A few years ago the residents of the prettiest avenue in the city of Niagara Falls woke up one fine morning to find that a tract of ten acres on this avenue had been cleared of its dozen or more dwellings and that ground was being broken for the building of a great factory for the manufacture of Shredded Wheat products. As it reared its ornate towers and pinnacles high above the surrounding dwellings, the "factory" changed to a "conservatory," and the astonishment of the residents changed to acquiescent admiration.

Here was a building whose builders had the daring to invade the choicest residence neighborhood in the town to plant an industry far away from the smoke and dust of factory and railroad. This search for cleanliness and beauty, foolish as it might seem to the hard-headed man of finance, naturally constitutes one

of the attractive features of the plant and gives it a unique place among the food manufacturing concerns of the world.

A Hundred Thousand Visitors Every Year

The spectacle of a hundred thousand persons going through a factory every year is something so unusual as to call for more than passing notice. This is the number that annually visits "The Home of Shredded Wheat." The question therefore naturally arises, "What is there so unusual about this factory that it should attract such crowds, even drawing them away from the scenic splendors of the Cataract itself?" Surely the ordinary factory is not such an object of popular interest—indeed the average factory does not throw open its doors to the public. It does not care to have its methods of manufacture inspected by curious throngs.

The Cleanest, Finest Food Factory in the World

Right here is the secret of the drawing power of this wonderful establishment. There are factories and factories. But the Shredded Wheat factory is unique. There is nothing like it in this or any other country. It is the dream of a "dreamer," fully carried out. This "dreamer," who invented Shredded Wheat Biscuit, said he would build the cleanest, finest, most hygienic factory in the world in which to make the cleanest and purest cereal food in the world, and he succeeded in making good his promise. In this plant are realized the most advanced twentieth century factory ideals.

This is what draws the pilgrims from all lands. It has been visited by men and women of every race, of every clime, of every station in life, from men distinguished in letters and politics to members of royal families. The building is located on Buffalo Avenue, in the heart of the best residence district of Niagara Falls. Its ornate and dignified architecture gives it the appearance of a fine institution of learning rather than a factory. Thirty thousand panes of glass let in the sunlight which floods every nook and corner with its cleansing rays.

The building is entered through a large reception room on either side of which are writing and reading rooms for guests, furnished with beautiful rugs and sumptuous weathered-oak, leather-upholstered furniture. From the middle of the ceiling hangs a pendant, a great crystal ball, inside of which are thirty-six electric lights. At the base of the vast columns supporting the ceilings are upholstered settees. Here may be found guides ready to pilot visitors through the building. The gallery around the reception room, as well as the entire floor above, are taken up with the administration, publicity and accounting offices of the Company.

The Observatory

After registering in the visitors' register, let us join one of the parties and follow the guide through this interesting plant. Entering one of the electric elevators we are first taken up to the observatory on the roof of the administration section of the building which commands a wonderful view of the Niagara River, the Rapids, Goat Island, Three Sister Islands

and other scenic beauties of this picturesque region. There is probably no view of the Niagara River that is comparable to the one that may be had from this observatory, and while standing here and breathing in the pure, invigorating air from over the Upper Niagara Rapids one is impressed with the pains and foresight taken in the selection of this splendid location for such a model plant, far away from the dust and smoke of factories and railroads with sunlight and pure air on every side.

The Cleaning and Cooking Rooms

To get an adequate and comprehensive idea of the process of manufacturing this famous cereal food it is best to follow the grains of wheat, from the point where they enter the building, through the various details of manufacture to the finished product. Therefore upon leaving the observatory we are next taken to the top floor of the central tower to which point the wheat is elevated and where it passes through twenty-two cleaning machines which remove all dust, dirt, wild oats, mustard seed, cockle, straw and other foreign substances, as well as broken and defective grains of wheat.

Each one of these machines is a marvel of ingenuity and has some particular work to do. The machines for removing cockle, which is a little black seed, and the large "gravity machines" which remove broken and defective grains as well as little stones always excite the interest and astonishment of visitors. After the wheat has passed through these twenty-two cleaning machines, all broken and defective grains have been

removed, leaving only perfect, large, whole grains of wheat, each one of which has been cleaned as thoroughly as if it had been scrubbed with a brush. On this same floor is the cooking room, equipped with great steel cylinders which are filled with the wheat from the cleaning room. The wheat while being agitated by revolving steel paddles is cooked for about thirty minutes, this process breaking up the starch granules in the center of the wheat kernel, rendering them soluble and digestible. The outer coat of the wheat berry is unbroken, and none of the nutritive elements in the wheat are lost in the process of cooking.

Drying the Cooked Whole Wheat

When the wheat is thoroughly cooked, the steam is turned off, the end of the cylinder opened and the delicious looking grains of cooked wheat roll out into a hopper and drop down to the floor below into a drying or "conditioning" machine which removes the excess of moisture which remains after the cooking process and which must be eliminated before the wheat is ready for the shredding machines. This "conditioning" machine is a most ingenious piece of mechanism, consisting of a large iron cylinder, extending perpendicularly through two floors of the building, inside of which is a perforated iron cylinder. The cooked wheat enters at the top and slowly works its way down between the two cylinders, while air at a proper temperature is forced through the inner cylinder, through the cooked wheat and out through openings in the outer cylinder which resemble the lattice work of a window shutter. When a sufficient amount

of the moisture is removed, the swollen, softened kernels are ready for shredding and are dropped down through a hopper to a lower floor of the building where they enter the shredding machines and later in shredded form are moulded, baked and packed.

The Shredding and Baking Room.

As the next step in our trip of following the wheat in its journey from the cleaning room to the sealed package we descend to a lower floor which is by far the most interesting department in the process of manufacture, containing as it does the shredding machinery, the great ovens and the packing tables. Here the cooked wheat is fed into the hoppers of the great shredding machines, each eighty-eight feet long and consisting of thirty-six pairs of steel rollers. The wheat kernels are caught between these rollers and drawn out into fine, porous shreds, which are dropped upon an endless chain, laying layer upon layer, until they form the thickness of the Biscuit, when the long band of white filaments is brought to a cutting device which separates them into oblong cakes and drops them on to a pan holding fifty-two Biscuits.

The Big "Ferris Wheel" Ovens

The pan of Biscuits is then placed in the arms of a large drum, shaped like a Ferris wheel, which revolves in an immense oven until the Biscuits are baked. They are then passed through a second oven, which completes the baking process. The Biscuits are then conveyed in large pan-racks to packing tables where they are placed in cartons, and they in turn are

placed on an endless belt which carries them to the sealing-machines on a floor above.

Sealing Machines Which Are "Almost Human"

Ascending to this floor we are permitted to witness the operation of machines that are marvels of ingenuity. As these sealing machines were especially devised for sealing packages of Shredded Wheat Biscuit, nothing like them is used in the manufacture of any other food. They impress the visitor as being "almost human" in their operation as they automatically open the flaps of the cartons, seal them with dextrine—a vegetable glue—fold them together again and then paste a strip of paper over each side in such a way as to join the edges of the flaps, making a package that is practically moisture-proof and air-tight. These packages are then carried along by means of belts between cylinders of steam and when they reach the end they are dry enough for packing in the wooden cases. These cases are made of spruce wood and are nailed together by nailing machines which fasten down the lid at one stroke. The sealing machines are provided with counters which register the number of packages, also with a device which marks each package with a private mark by which the manufacturers are enabled to tell the exact date of its packing.

The Wonderful Electric Triscuit Ovens

We will now descend to the floor where are located the great Triscuit ovens in which are baked the Company's other product known as "Triscuit," the Shredded Wheat Wafer. Triscuit is made the same as the

Biscuit except that it is compressed into a wafer and baked by electricity in a specially devised machine so interesting and wonderful in all its operations that it has attracted the attention of electricians from all over the world. This oven consists of a long series of slow-moving "waffle irons" which serve to compress and indent the Shredded Wheat while the electric current supplied to each waffle iron cooks it crisp and brown. On this floor is also seen a machine which makes the cartons or boxes for the Triscuit, folding, pasting and delivering them ready for the packing of the Triscuit. Through a system of moving belts the crisp wafers are carried from the electric ovens to long packing tables at which young ladies place the Triscuit in packages which are then wrapped and packed in cases ready for shipment.

A Complete Printing Establishment

This completes the process of making Shredded Wheat Biscuit and Triscuit, but before leaving the building we are invited to visit the wonderful printing plant, which, while having no connection with the manufacture of Shredded Wheat, is made necessary by the packing requirements of the Company. Here we see in operation several of the largest and most modern printing presses which are kept busily employed turning out cartons used for packing Shredded Wheat Biscuit. Each of these big presses turns out cartons at the rate of four hundred and fifty per minute, and takes the cardboard from great rolls or cylinders on which it has been wrapped by a machine especially constructed for that purpose. To those

who are not familiar with the modern development of the art of printing this is one of the most fascinating rooms in the building. In addition to this machine from which there constantly pours a perfect Niagara of colored cartons, to the great amazement of visitors who look down upon it from a gallery above, there are marvelously ingenious machines for folding the cartons that are used for packing the Shredded Wheat Biscuit. The necessity for providing cartons for over three million Biscuits a day makes this department a perfect beehive of industry and requires that there be kept constantly on hand a great supply of these mammoth rolls of cardboard which occupy over half the space on this floor.

Noon-day Luncheon Is Served Free

Near the department we have just left we are shown the spacious, beautifully lighted dining room where the Company serves to its employees at noon-time a delicious, wholesome meal, embracing a selection of foods prepared with reference to the tastes and physical necessities of the employees. The meal is served on the a la carte plan which enables the employees to gratify their individual tastes and needs. At this meal the girls are guests of The Shredded Wheat Company and every effort is made to make the noon-day luncheon one of the delightful relaxations of the day. A separate dining room is provided for the men and a nominal charge is made for the meals. After lunch the girls who choose to do so may lounge or visit in the comfortable rest room on this same floor

which is furnished with leather-upholstered furniture, settees and lounges, reading tables and a circulating library. At one end of the rest room is a room provided with a hospital bed, and an emergency chest containing medicines, bandages and other articles ready to administer quickly to the needs of a sick or injured employee. Fortunately these are not often required, but to have them quickly available when they are needed means a great deal in an organization of this size.

An Auditorium for Lectures and Parties

One would think that the privilege of working under such ideal conditions in a factory flooded with sunshine and with every modern device for securing perfect hygiene and sanitation would represent a reasonable regard on the part of the Company for the welfare and happiness of its employees. But the Company has gone much further than this. It has not only provided a beautiful place for its employees to work in, but has in operation probably the most rational scheme of social and moral betterment that may be found in any factory in this country. We have already visited the spacious dining room and the comfortably furnished rest room, but we have yet to see the auditorium, a large, beautifully lighted room, which has a seating capacity for one thousand persons. In this auditorium are given from time to time lectures and other entertainments of an educational character for the instruction and edification of employees, including dances, parties, receptions and other social events. In one end of this auditorium are a number of tables at

which we are invited by the guide to be seated and partake of a delicious demonstration luncheon served by daintily attired waiting maids. While partaking of this luncheon we are entertained by a lady who delivers an instructive talk on the food value of the whole wheat grain and the superiority of the shredding process as the best process ever devised for making the whole wheat grain digestible. She also shows us the culinary possibilities of Shredded Wheat, how it may be combined with berries and other fresh or preserved fruits and what a boon it is to the housekeeper who often finds it necessary to quickly prepare a nourishing and wholesome meal.

Shower and Needle Baths for Employees

After leaving this room we are shown some of the beautiful lavatories which are provided by the Company for the use of employees, at a cost of one hundred thousand dollars, and which include shower, needle and tub baths, individual lockers and other facilities for encouraging cleanliness and neatness on the part of employees.

While this model factory is unique in its provisions for the health, comfort and entertainment of employees, its regard for their welfare does not end with perfect sanitation, perfect lighting and elevating surroundings. It carries on varied departments of welfare work that are calculated to promote moral and educational betterment as well as health. With unstinted generosity the Company provides opportunities for mental, manual, artistic and social development.

Famous For Its Welfare Work

It would require a good sized booklet to describe all the departments of this welfare work for which this institution is famous throughout the land. The Company not only provides a locker for each employee, costly lavatories and hygienic noon-day lunches for them, but maintains a circulating library and gives them access to hundreds of periodicals. The Company also provides soap and towels and bathing facilities which encourage and maintain the highest standards of personal cleanliness. The employees are also allowed rest periods of fifteen minutes every morning and afternoon in addition to the hour that is allowed for the noon-day luncheon and recreation. The physical and social welfare of the girls is largely in charge of a matron or "factory mother" who is always ready with timely help and kindly suggestion to meet the troubles and perplexities peculiar to the sex.

Prompt Care of the Sick

As little illnesses and accidents will occasionally occur among the employees, the Company, in order to provide prompt relief, maintains a corps of emergency nurses, composed of volunteers among the employees of the Company, who are given professional instruction in the principles and practice of "first aid." Each nurse is provided with a case containing everything needed for emergency work, and there is also a specially equipped room in which a sick or injured employee can be quickly and comfortably cared for. One of these young women nurses is connected with

each department in the factory and office, and while continuing their regular work they are always ready to give help when it is needed. The food that is purchased and served to the employees in the two dining rooms is carefully examined, the milk is tested daily, the dishes are all sterilized and the use of cold storage food is prohibited.

Many Forms of Healthful Amusement and Entertainment are Provided

For amusement the management provides a tennis court, baseball field, baseball club, bowling team, dances and receptions. Each summer the Company takes all of its employees and their families on a big outing, and during Christmas week the employees and their families are the guests of the Company at a large reception and dance held at "The Home of Shredded Wheat," as a fitting conclusion to the year's work. Informal dancing receptions are held at noon on Monday and Wednesday of each week during the winter season, and other dances and receptions are given by the employees as the occasions arise, as for instance the customary farewell dinners to employees who are about to be married. Every Saturday afternoon throughout the entire year is granted as a half-holiday with full pay to all employees of the Company, both in the office and in the factory.

Other Social Betterment Features

There are numerous other features for the mental betterment of the Shredded Wheat family which might

truly be called educational. There is a choral society, the meetings of which are held weekly. The time given to these rehearsals is paid for by the Company as if the girls were working. Sight reading, technic and vocal exercises are taught. A dancing class is in operation through six months of the year, and all employees of both sexes are eligible to membership. Deportment and etiquette form part of the instruction. The course is suitably divided into advanced classes, beginners' class and instruction in folk dances.

A shorthand and typewriting class is conducted for the benefit of all employees who care to take advantage of this instruction, the only requirement being that they possess a fair knowledge of the common English branches.

There are also classes in the common English branches, mechanical drafting, domestic science, dress-making, millinery, china and water color painting and photography. An experienced instructor is in charge of each class and many ambitious and deserving employees have thereby been greatly helped to decrease their cost of living, provide additional income and better themselves in every way.

A Musical Association and Concert Band

As an outcome of the musical work of the Company the now famous Shredded Wheat Concert Band was formed, and it will undoubtedly long continue to delight thousands of music lovers both at home and abroad. One of the principal objects of the musical work, however, is the teaching of instrumental

music to those employees who are desirous of securing such instruction, great attention being given to the primary classes, and as the young men acquire sufficient musical knowledge they are advanced to membership in the band, or in one of the other musical organizations. In this manner it is possible to add greatly to the resourcefulness of these operatives who become semi-professional, more ambitious and better men. In addition to the original Shredded Wheat Concert Band there are now the Junior Band, Canadian Military Band, Bugle and Drum Corps and Scotch Pipers.

To further protect the employees against need, a relief association was organized and has been in successful operation for many years. The funds for the work of the association are raised through regular weekly payments made by the members and the Company; the Company contributing an amount equal to the total paid by the employees. The association pays both sick and death benefits to its members.

The Company owns all the land between the factory and the Niagara River, all of which is laid out in attractive lawns, with flower-embordered walks and avenues for the pleasure of the employees, and which are in charge of an expert landscape gardener employed by the Company for that purpose. In summer the verdure and floral loveliness of these lawns present a pleasing contrast with the yellow bricks of the noble structure in the background, and are admired by many thousand visitors.

Noble Proportions of the Building

Mere figures give a very inadequate idea of the noble proportions of this building. They do not tell the story of the architectural symmetry, its costly equipment or its perfect adaptation to the work of making the cleanest and most healthful food product on earth. Those who like figures, however, will be interested in knowing that the main building of the Shredded Wheat plant is 463 feet in length by 66 feet in depth, with four large connecting portions, and that it contains 3,000 tons of steel and 200 tons of marble. Its beauty is greatly enhanced by the 844 windows with their 30,000 lights of glass, making it indeed a veritable "crystal palace."

It is without doubt the cleanest, finest, most hygienic food factory in the world, a factory that is dedicated to the important truth that the whole wheat grain is the most perfect and most complete food given to man.

The Happy Shredded Wheat Family

With most cordial democratic relations existing between management and employees, with no class distinctions or special privileges accorded to any department, with everything done for their moral and mental advancement and their physical betterment, it is no wonder the "Shredded Wheat Family" is the happiest industrial organization to be found in all the land; nor is it any wonder the Company's products have found favor in every quarter of the habitable globe.

The demand of the age is for "efficiency." How to increase the efficiency of the human machine is the topic of the hour. The subject is engaging the thought of doctors, economists, business organizations and scientific men.

We are in an age when Power is being measured by units of every description—volts, amperes, kilowatts and horse-power. We speak of a "sixty-horse-power machine" or a "six-cylinder machine"; but how often do we hear of a six-cylinder man, or how often do you hear his power measured in units of energy?

Of course we cannot measure a man's capabilities in terms of horse-power. Horse-power is defined as "the power that must be exerted in lifting thirty-three thousand pounds at the rate of one foot per minute; or five hundred and fifty pounds at the rate of one foot per second; or fifty-five pounds at the rate of ten feet per second."

The Energy of the Human Machine

In measuring the energy of the human machine we would naturally have to express it in terms of man-power, but with all our scientific study and investigation no man has been able to arrive at a unit of measure for computing the physical, mental and nerve power of a perfect human being. The best we can do is to ascertain through experience and study what will increase man-power. The necessity for this is seen on every hand. We are living in an industrial age. The prize in nearly every department of human activity goes to the man or woman who is physically

fit. Corporations, banking institutions, commercial houses and even the so-called learned professions are looking for the person of highest man-power.

Great business enterprises cannot be run entirely by automatic machinery. The call is for men who can organize and direct in such a way as to reach the highest efficiency—to get the greatest returns from human energy.

Only One Way to Increase Man-Power

Now, there is but one way of increasing the man-power of the human machine, and that is through proper food and rational exercise. If there is any other way it has never been discovered. Men have tried alcohol and other “whips” for stimulating human energy, but instead of increasing strength they have left the body debilitated. They have tried to get energy from elixirs taken from certain glands of certain animals. They have built machines for exercising lazy, weak and indolent bodies, but these “exercising machines” do not supply strength. One might as well try to get up steam in an engine by having another engine revolve its flywheel. To get up steam you must put fuel under the boiler.

Shredded Wheat Is Unique Among Breakfast Foods

There is no “substitute” for Shredded Wheat Biscuit. It stands unique among breakfast foods, not only because of its shredded or filamented character, but because of the fact that it is made in biscuit form. The “little loaves” are of such a size and form as to make them adaptable to all sorts of combinations with

fresh or preserved fruits or creamed meats or creamed vegetables. In the case of fruits, the porous shreds readily absorb and neutralize the fruit acids, holding their natural flavor and adding much to their wholesomeness and palatability.

In the strawberry season, many thousands of persons who cannot eat these luscious berries fresh from the vines without much stomach distress are able to fully enjoy them in combination with Shredded Wheat Biscuit and cream. The same is true of other acid fruits, whether raw or preserved. Its uses are by no means confined to acid fruits, however, as the Biscuits are equally nutritious and delicious in combination with sliced bananas and other non-acid fruits. "The unexpected guest" means no trouble to the housekeeper who has a supply of Shredded Wheat Biscuit always on hand; for with these Biscuits a tempting, appetizing and nourishing meal may be prepared "in a jiffy" by combining them with some kind of fresh or preserved fruits, or with creamed meats or vegetables, or by simply serving the Biscuit (heated in oven) with milk or cream. These delicious combinations are not possible with any other cereal breakfast food.

Many Ways of Serving Shredded Wheat

Shredded Wheat can be served in so many different ways that it is an easy matter to please all sorts of people who have all sorts of tastes and notions regarding a "breakfast cereal." Most people who eat Shredded Wheat for breakfast simply heat the Biscuit in the oven to restore crispness and then pour hot milk

over it, adding a little cream and a dash of salt. Or, it may be eaten in this way: dip the Biscuit quickly in milk, drain and then add cream; or, dip the Biscuit in milk, drain and fry in butter, after which it may be served with a little cream. If you don't like milk or cream, dip the Biscuit quickly in hot salt water and place a chunk of butter on it, allowing the butter to melt into the shreds. The Biscuit is also delicious when split and heated in oven and eaten with butter, the same as any toast.

Triscuit, the Shredded Wheat Wafer

Triscuit, the Shredded Wheat Wafer, takes the place of the white flour cracker, and as a toast is used as a substitute for white flour bread with butter, cheese or marmalades. It is an ideal food for flat-dwellers, light housekeepers, campers, for picnics, for excursions on land or on sea. It is the favorite food of hunters, fishermen and other sportsmen; being easily carried and containing the greatest amount of nutriment in smallest bulk. Triscuit toast is served on nearly every ship that sails the seas. It is eaten in tropical climes and in all countries where the climate makes meats and other heavy nitrogenous foods unhealthful and undesirable.

Unsolicited Letters of Gratitude and Appreciation

Hundreds of letters are received every year by this Company from those who eat Shredded Wheat, expressing their appreciation of the product, and their gratitude for what it has done for them in restoring them to health and vigor. Many of these letters are almost pathetic in the fervor of their gratitude and their fondness for Shredded Wheat. Whether the letters are from dyspeptics who have found relief in Shredded Wheat or from mothers who have saved their children by giving them Shredded Wheat when all other foods failed to give nourishment, they are equally earnest and impressive in their efforts to express in strong enough terms the thankfulness of the writers. These letters are all the more valued by the Company for the reason that they are not asked for, but are sent voluntarily and out of the fullness of the heart. We cannot print all these letters, but we have embodied a few of them in this book merely to give an idea of what the users of Shredded Wheat think of it as a pure food for the perfect nourishment of the human body in sickness and in health. Thousands of similar letters are on file in the office of the Company.

Friends Exclaim: "How Well You Look!"

Undoubtedly this will come as a surprise to you as you have not solicited my testimonial, but I feel that I owe you my everlasting gratitude. Last November I weighed 150 pounds, and now after four months' use of Shredded Wheat, I have gained twenty pounds, weighing 170. Previous to my discovery of your product I was hunting for some remedy suitable to my supposed ailment. My friends now exclaim, "How fat you are getting!" "How well you look!" I eat very little meat, my main meal is breakfast, as I am employed nights. This meal consists of five Shredded Wheat Biscuits and about one quart of hot milk, the Biscuit being sprinkled liberally with sugar. I am entirely free from pain or discomforts of any kind, the stomach and digestive organs seemingly perfect and healthy.

C. L. Nordholm, Geneseo, Ill.

For a Light Lunch after Work

I am employed in a drygoods store and at night feel the need of some nourishment after my evening's work, and there is nothing I can find to take the place of Shredded Whole Wheat Biscuit with a little cream and a sprinkle of salt. Before using your Shredded Wheat Biscuit I used to retire hungry, for if I ate other foods they would distress me. I wish others would try them, those who have to work evenings, as it takes but a short time to notice their beneficial effect.

Mrs. M. P. Rose, 84 Main St., Georgetown, Mass.

A Brain-worker Says—

Concerning Shredded Whole Wheat Biscuit, I have only unqualified praise. In my own house I use it largely, and recommend it to others. I have tested it in comparison with other breakfasts, both cereals and meats, and have found that my forenoon's work, either entirely or partly mental, could be done much better and easier after a breakfast of fruit, Shredded Whole Wheat Biscuit and coffee.

Dr. E. Way-Allen, "The Wayside," Walpole, Mass.

Strong and Vigorous at Seventy

We have used Shredded Wheat about twelve years in my family, which consists of myself and wife, five children and fifteen grandchildren. Have had the pleasure of visiting "The Home of Shredded Wheat" several times. I was seventy last June. Most of my living is Shredded Wheat and I can lick my weight in wildcats every twenty minutes. Any person who visits the Falls and does not visit "The Home of Shredded Wheat," loses one-half cost of time and money, everything is so clean and nice.

Mr. H. R. Buxton, Plainwell, Mich.

The Out-of-Doors Man

It may be of interest to you to know that my son Carlton, a young man 22 years of age, eats six of your Shredded Wheat Biscuits every morning for breakfast. He has been eating the Biscuits every morning for nearly seven years. At first he ate only three each morning, but he has gradually increased until he now eats six. He seems to enjoy them just as much now as he ever did. He is a strong and healthy boy, and is a deliveryman for the Wm. Steinmeyer Company, being in the open air all day.

Henry Janzer, 7173 4th Street, Milwaukee, Wis.

Has Discarded Stomach Medicines

Although for my kind of dyspepsia I find Shredded Wheat suits me best, I have had no hard spell of dyspeptic troubles since I have been eating it, now nearly four years. It suits me perfectly in every way. Before this I was compelled to be always taking some kind of stomach medicine, but since I began your food I have discarded medicine and have almost perfect stomach health. In fact, I now claim that Shredded Wheat eaten just before going to bed will cure the most aggravating case of dyspepsia. I have taken pills for years, but since eating the Wheat I have discontinued this use, and I find myself more regular now than with the use of the medicine.

A. J. Bandel, 933 N. Mount St., Baltimore, Md.

Cured of Sick Headaches

I have been a user of Shredded Whole Wheat Biscuit for six years or more. Before I began using them I had periodical sick headaches, coming about every five or six weeks, and since using them I have had but one such headache in over five years, so you see their importance to me, and my desire to have them for my regular breakfast food.

Rev. Chas. P. Hall, Brewton, Ala.

It Saved His Boy's Life

I can cheerfully recommend your Shredded Wheat Biscuit as a grand food for children, for what it has done for my boy, now in his sixth year. He was nearly dead, in his second summer, from summer complaint, and would eat nothing but potatoes. We finally got him to eat a part of a Biscuit. He liked it from the first, and soon was eating them all the time, soon becoming well, fat, and hearty. He is now a healthy, growing boy of six, going to school every day, and must have his Shredded Wheat Biscuit every morning for breakfast. My wife and I have always said that we attribute the saving of his life to your Shredded Wheat Biscuit.

Chas. Suma, Union City, Ind.

At Every Meal

All of us, including my husband, and three oldest children and myself, think there is no equal to Shredded Whole Wheat Biscuit, and when I tell you that for the past three years we have used from eight to ten boxes a week, you will understand our fondness for them. I have one little boy, three and one-half years old, and since he was a year old, and able to lisp "bick," I think he has never missed a meal that he has not had his Biscuit, and often between meals. He never eats meats, and very little sweets. He weighs about forty pounds, and is as fine a specimen of a healthy child as could be found anywhere. For myself, I have been very much benefited by their use, and, as a consequence, I have recommended them to several friends who have been equally benefited.

Mrs. Mary M. Doyle, 126 Avon Street, Rockford, Ill.

Treatment of Employees—A Striking Example

I visited your fine factory about two weeks ago, and without request on your part, let me say my family use Shredded Wheat Biscuit and Triscuit, and they thrive on them. I shall use them with more interest now that I realize, first, the great virtue of whole wheat and your method of its preparation; second the cleanliness of your factory and handling of the food; third, the fact that your principle is to live and let others live. Your humane treatment of your employees is a striking example of what all manufacturers ought to do.

Mr. Edward P. Phreaner, 34 Preston Street, Providence, R. I.

Ate Nothing Else for Six Weeks

I was all run down this Spring with stomach trouble, when your agent left a trial package of Shredded Whole Wheat Biscuit at the door. I tried them and found that I could eat them without distress. I put one in the oven with a bit of butter and a little hot water for a few minutes, and then ate them with a little fruit juice. It was not long before I could eat two at a meal.

I did not eat anything else for six weeks but Shredded Whole Wheat Biscuit. There is another woman on our street that was in the same condition. I persuaded her to try the same remedy, and she would be a good advertisement for your goods if you had her picture before and after she had used them two months. The children like them, and they agree with me that there is nothing like Shredded Whole Wheat Biscuit.

Mrs. Jas. H. Johnson, Havana, Ill.

Colds Don't Bother Them Now

For eight years I have almost lived on Shredded Whole Wheat Biscuit and all my children eat them with great relish. They have not been sick a day all winter, their systems have been kept clear and healthy, and they cannot catch cold, for a sound, healthy system is proof against it.

Dr. A. D. Decker, Pastor First M. E. Church, Susquehanna, Pa.

What Pills and Tablets Failed to Do

I am 73 years old, a physician and surgeon in Scotland County, Mo., during the last 30 years, and I write to say that your Shredded Wheat with sugared milk has done for me what all my tablets and pills have failed to do. About three months ago I began using Shredded Wheat with sugared milk exclusively, and the results have been that I have had to take but one dose of purgative medicine since coming here, and have gained fifteen pounds in weight. Shredded Wheat will cure any case of curable constipation. In my opinion the Shredded Wheat is worth all the other cereal foods now on the market.

Dr. A. W. Sawyer, Gorin, Mo.

Strength for the Working Man

I have been a user of Shredded Wheat Biscuit for eleven years. At that time I started using two Biscuits, which I increased to five about five years ago, and I now eat five Biscuits six mornings out of every week. I cannot find any food that I know is so healthy for a working man to use. I am on the move from half past four in the morning until eight o'clock at night, am 52 years old, never sick, eat very little meat, some days not any. Have from five to fourteen men at work. Keep my accounts, do my chores morning and night, keep two-horse team, which I take care of. Now, I say I could not do all this but for the Shredded Wheat.

F. S. Potter, Office, 730 Water St., Fitchburg, Mass.

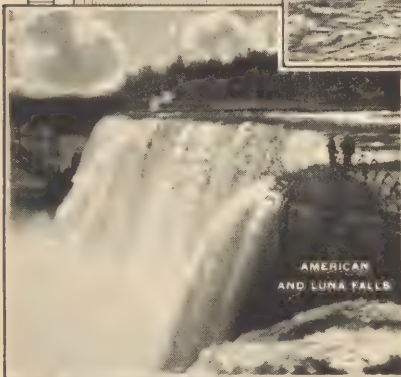
In a Minister's Family

My experience has been that Shredded Wheat Biscuit is an ideal food for brain workers. I speak from what I see and hear as a minister's wife. I know it makes an ideal breakfast for a minister, being nourishing, sustaining, and easily digested. And then, it is a food that one never tires of, even the most fastidious person has an appetite for Shredded Wheat.

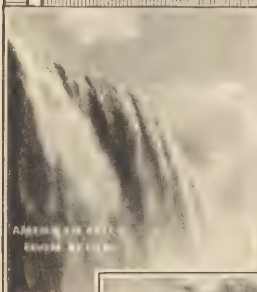
Mrs. S. G. Davis, 391 Stevens Ave., Deering, Me.



NIAGARA FALLS THE BEAUTIFUL AND WONDERFUL



A REGION
OF
SCENIC
GRANDEUR
AND
SUBLIMITY



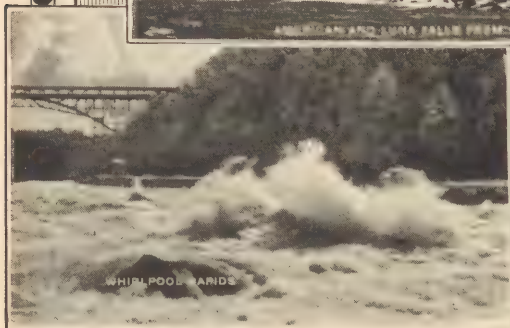
AMERICAN FALLS
FROM BELOW



ROCK OF AGES
AND BRIDAL VEIL FALLS



AMERICAN AND LUNA FALLS FROM CANADA



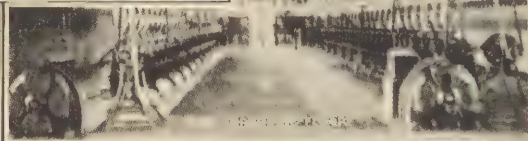
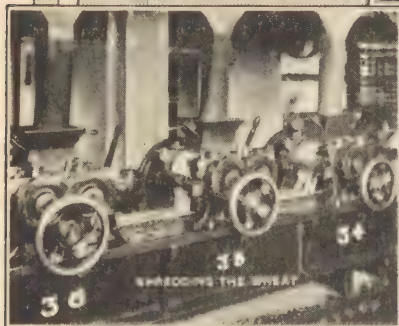
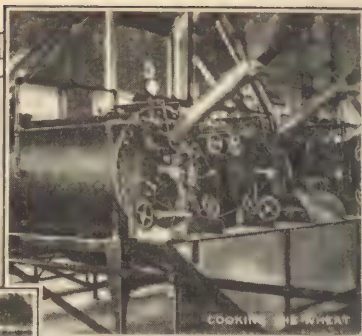
WHIRLPOOL RAPIDS



THE FOUR BIG SHREDDED WHEAT Factories

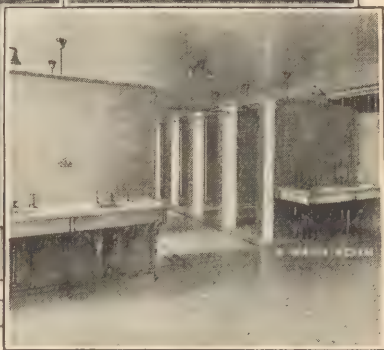
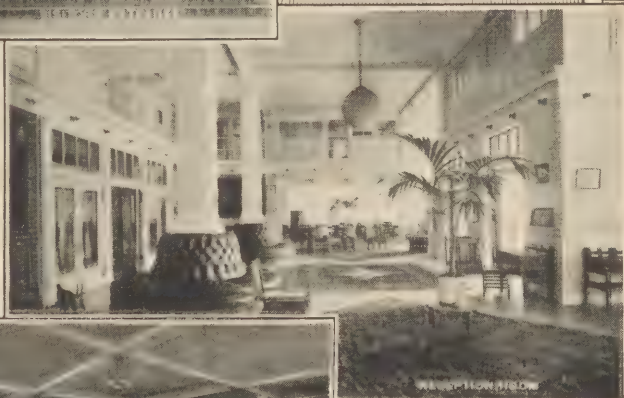


HOW SHREDDED WHEAT IS MADE





SOME UNUSUAL FEATURES OF "THE HOME OF SHREDDED WHEAT"



BRINGING SUNSHINE INTO THE LIVES OF EMPLOYEES



EMPLOYEES
AT LUNCH



EMPLOYEES IN REST ROOM



LIBRARY FOR EMPLOYEES.



THE SHREDDED WHEAT BAND.

Remarkable Preserver of Health

I wish everyone knew the worth of Shredded Whole Wheat. Since I discontinued meat at the noonday meal some years ago and commenced the steady use of Shredded Wheat instead, I have not only rid myself of rheumatism, but have greatly strengthened my digestion. I consider it the very best food in the market for the person of weak digestion. Not only will it aid the sick to regain health, but it will prove a remarkable preserver of health. It is wholesome, delicious food. Many of my friends eat it regularly, and they all tell how much it has benefited them.

R. F. Bogardus, 4 and 6 Warren Street, New York, N. Y.

Helping Fight Tuberculosis

I can confidently say that Shredded Whole Wheat, containing, as it does, all the nutritive elements of the wheat, and being in porous form, is rendered easily digested, peristaltic action is promoted, and an invaluable substitute is presented for the usually over-sifted flour and meal so unsuited to feeble conditions of the alimentary canal. Because indigestion and dyspepsia are generally precursors or accompaniments of tuberculosis, and because of its tissue-building power, this is an excellent article of food for the tuberculous.

Chas. Denison, M. D., Denver, Colo.

Was Slowly Starving to Death

Some six months ago I became very ill with most severe stomach trouble, and so serious was my condition that I could not eat foods such as very young children are fed. After losing thirty-eight pounds, as I was slowly starving to death, I one day tried a Shredded Wheat Biscuit. To my joy I felt no distress, so for the following four months lived entirely upon them, and am now very much better and have gained quite a little. Accordingly, it is with pleasure I send you these lines to express my gratitude and with the hope that others may be benefited.

Eugenia Weeks, 399 Classon Ave., Brooklyn, N. Y.

Nothing Ever Tasted So Good

I am a Shredded Wheat eater. Shredded Wheat has been the base of my living for the past three years. I have eaten it three times each day, and eat three or four at each meal and nothing ever tasted so good to me in all this world. I have gained steadily in flesh from the first. Am fifty years old and have never worked harder than during the past three years.

Mrs. H. W. Reed, Shiocton, Wis.

Tuberculosis Patients Need a Nourishing Food

As an all-around food, food that feeds, your Shredded Whole Wheat is the food above all others. Tuberculosis patients depend mainly on pure and nourishing food to effect a cure, and in Shredded Whole Wheat we have a food that furnishes the desired nourishment when taken with plenty of cream, and a food that does not disturb the digestive organs, but, to the contrary, improves digestion. I heartily endorse Shredded Whole Wheat.

C. J. Bailey, Sup't., White Mountain Tuberculosis Sanitarium,
North Conway, N. H.

Makes It Nine-tenths of His Food

Yesterday samples of your goods were left at my house, and in response will say that fully nine-tenths of my food has been Shredded Wheat. I eat one and a half Biscuits for breakfast, one and a half again for dinner, and one for supper, making four Biscuits per day, with a little sauce. At dinner I now and then take a little of something else that I find on the table, with a little butterfat in some shape. I keep my strength by this living and have less sickness than formerly. My stomach is growing much better and now requires but little aid to digestion. My persistence in living on wheat I think has brought this about. I will add, that it prevents and in time cures constipation. Chemists tell us that wheat contains all the elements necessary to nourish mankind. This fact was what set me to living on wheat.

O. B. Maples, 513 South Main St., South Bend, Ind.

For Those Who Want the Best of Foods

I so thoroughly believe in this food and in its preparation, having gone through the entire plant, that I like to recommend it always to the people who want the cleanest and best of foods. I so thoroughly believe in it and its life-giving qualities, that in our own home for the morning meal our boys and myself eat nothing else.

W. A. Hillis, Supt. Am. Sunday School Union, Caxton Bldg.,
Cleveland, Ohio.

Strength for the Day's Work

I have used your Shredded Whole Wheat Biscuit for breakfast for some time over one year, and find them all right. I eat three Biscuits for my breakfast every morning, and the more I use them the better I like them. I have to work very hard all day and find they give me strength to do it. Before using the Shredded Wheat Biscuit I always found a pain in my breast after eating, but since their use I have no such pain.

Alfred M. Lance, 3813 Cambridge Street, Philadelphia, Pa.

Ate No Other Food for a Year

Some six years ago I was taken ill with catarrh of the stomach, which developed into ulcers, and they soon caused hemorrhages. When at my worst, and my life despaired of, I changed doctors, calling in Dr. W. S. Wiggins, of this town. He immediately ordered a diet of Shredded Wheat Biscuit for me, to be eaten dry, after warming in the oven, and for one year I took absolutely no other nourishment.

It took six months to check the hemorrhages, and for four years I was under Dr. Wiggins' care. After the year of constant use of Shredded Wheat Biscuit, I took other light nourishment, but lived mainly on the Biscuit with fruit and milk.

It is now six years since my illness, and for my return to normal good health I feel that I am largely indebted to Shredded Wheat Biscuit. I still use it daily in my home.

Mrs. Geo. M. Artist, DeWitt, Neb.

For the Growing Boy

Personally, I have something that I can truthfully state, which might be of a good deal of benefit to you. During the past winter, I had a young nephew living with me, who has always had the most delicate appetite, having been an invalid almost from his birth. When he came to me, the first of December, he weighed but fifty-two pounds. His principal article of food, from the day he came to me until his return home in May, was Shredded Wheat Biscuits and cream. He attended school regularly, did not skip a day, and weighed seventy-six and a half pounds when he left Boston for Maine. Certainly that is a pretty good record for Shredded Wheat Biscuits.

E. E. Jones, 79 Milk St., Boston, Mass.

The Cowboy's Food

I have used Shredded Whole Wheat Biscuit on the ranch for the past three years. My cowboys all eat them, and, as they say, they will stay with you on a long, hard day's ride. Radcliffe Denniston, Mgr. The Dakota Ranch, Medora, N. D.

Used Medicine Daily—Needs it No Longer

I wish to tell you of the benefits which I have derived from the use of Shredded Wheat Biscuit and Triscuit.

I have been a sufferer from chronic constipation for fifteen years, until a year ago last April when my son persuaded me to leave off white bread and use Shredded Wheat Biscuit instead. Until I left off white bread and began using Shredded Wheat Biscuit I had to take a dose of medicine for constipation almost daily. Since I began using Shredded Wheat Biscuit and Triscuit I have not taken any medicine, and have been troubled but slightly with constipation since.

I know this reads almost like a patent medicine advertisement, but nevertheless it is the truth. I really cannot praise Shredded Wheat Biscuit and Triscuit too highly.

Mrs. Anna B. Crow, Sherman, Ill.

Had Lost Heart Altogether

I am sending by this post two amateur photos of my only child, now a bright, bonny boy. About three months ago he was seriously ill with measles, and is now only getting strong again after a great deal of anxiety as to the final turn of affairs.

When he got up from his bed of sickness, nothing in the way of food, however daintily prepared, seemed to tempt him. You may imagine my dilemma, knowing his strength must be maintained at any cost. A lady friend called and asked me if I had tried Shredded Wheat Biscuit at all. I replied that I was losing heart altogether, and especially in the way of patent foods. Anyway, she brought me a box of your highly-renowned food, and my little boy was coaxed into trying one with boiled milk and sugar. No sooner had he begun eating the little cake than he exclaimed, "It is lovely." From that day up to the present he has been having, on an average, five Biscuits daily with hot milk, stewed fruit generally, and a little sugar. This food has become an established diet with him, and I'm more than thankful to say that he has become physically bonnier and healthier than before he took measles. He will not be seven years of age until August next, and is quite a tall, sturdy boy amongst his playmates.

Kindly accept my hearty thanks to your company for their splendid food, which I shall not be slow in praising and recommending to anxious mothers with delicate children.

Mrs. A. A. McKenny, 246 Wordsworth Bridge Road,
Fulham, London, S. W., Eng.

Building Better Babies

In these days of complex living and increased social and industrial obligations many mothers are not able to nurse their babies. Even when the mother does nurse the little one there frequently comes a time when the baby does not seem to thrive. It grows thin and emaciated. Quite often baby drifts into the throes of cholera infantum. The child's cry for food is heart-rending. The more milk it takes, the more intense its hunger, for nothing is digested.

In such an emergency happy is the mother who knows how to make baby food from Shredded Wheat. This food has saved thousands of babies after special milk, pasteurized milk and prepared foods have failed. And yet Shredded Wheat is not advertised as a baby food. It is a cereal breakfast food eaten all over the world by youngsters and grown-ups, in every clime and in every season. But it just happens that Shredded Wheat contains the very life of the whole wheat grain prepared in such a way that if you strain the bran out of it the most delicate stomach, or the most delicate baby, will retain it and digest it. And this easy digestibility comes from the wonderful manufacturing process. In making Shredded Wheat Biscuit the whole grain is first steam-cooked at a high temperature, then drawn out into fine, filmy porous shreds; then formed into Biscuits and baked in coal

ovens. It contains every element needed for perfectly building every part of the perfect human body.

As Shredded Wheat Biscuit come from the ovens in the Shredded Wheat factory they are fine for children or grown-ups—but for nursing babies it is necessary to prepare them as follows:

Shredded Wheat as a Baby Food

1 pint water, $\frac{1}{2}$ pint milk, 1 Shredded Wheat Biscuit, $\frac{1}{16}$ teaspoon salt, 2 teaspoons granulated sugar.

Bring the water to a boil, then add the Shredded Wheat Biscuit and cook slowly for fifteen minutes. Remove from the fire and add the milk, salt and sugar, then strain through a fine cheese cloth. When cool set away covered in a cold place until needed. When ready to use heat the required amount to 98° F. and give by means of a feeding bottle.

Schedule for Feeding

AGE	Interval between Meals by Day	Night Feedings 10 P.M. to 7 A.M.	Number Feedings in 24 Hrs.	Quantity for One Feeding	Quantity for 24 Hours
	Hours			Ounces	Ounces
2nd to 7th day...	2	2	10	1 to $1\frac{1}{2}$	10 to 15
2nd and 3rd wks..	2	2	10	$1\frac{1}{2}$ to 3	15 to 30
4th and 5th wks..	2	1	10	$2\frac{1}{2}$ to $3\frac{1}{2}$	25 to 35
6th to 8th wks...	$2\frac{1}{2}$	1	8	3 to 5	24 to 40
3rd to 5th mos...	3	1	7	4 to 6	28 to 42
5th to 9th mos...	3	0	6	5 to $7\frac{1}{2}$	30 to 45
9th to 12th mos..	4	0	5	7 to 9	35 to 45

In the column showing quantity for 24 hours the larger number of ounces is for healthy children. The smaller number is for children of less vigorous digestion. Be sure that the bottle and nipple are kept absolutely clean. Always have the food at 98° F. when it is given to the infant. Under no circumstances boil the milk unless so directed by a physician. After 6 months the proportion of milk should be gradually increased until the child is one year of age, when it should be $\frac{3}{4}$ milk to $\frac{1}{4}$ water in the preparation of the food.

Unsolicited Letters from Grateful Parents

Pure, Economical, Nourishing, Tastes Good

Realizing that comparatively few mothers have any idea of the great value of Shredded Wheat as a baby food, and also that the artificial feeding of infants is an extremely difficult problem, I am most eager to give you the benefit of my experience.

"Modified milk" having agreed perfectly with my first son, it was a great disappointment to have my second son at the age of five months still wrestling with indigestion after each feeding in spite of all possible, intelligent modifications.

I then tried Shredded Wheat and milk as given in your formula for baby food. The indigestion vanished immediately and his gain was marvelous. The older boy (14 months) was then given eight ounces of the food twice each day, in his case proving an excellent relief from constipation.

Two daughters have since thriven on the same food, the youngest (now an unusually sturdy baby of 23 months, weighing 35 lbs.) was given the Shredded Wheat formula when she was one week old, with perfect results. All four of the children are exceptionally strong and robust, and my husband, who is a physician, having become convinced of its

merits as a baby food, has prescribed this formula for many infant patients with the most satisfactory and gratifying results.

The formula is easily prepared, and decidedly economical as compared with other baby foods, while it is a great satisfaction to know the child is getting only pure wheat in combination with milk, salt and sugar, creating muscle and bone for the baby as well as fat.

As a food for children the value of Shredded Wheat can not be overestimated. It is pure, it is economical, it is always available, it regulates the bowels, it is nourishing and infants take it readily because it tastes good.

Mrs. Edward Lyon, Jr., 900 High St., Williamsport, Pa.

It Meant a Great Saving to Her

I have used your Shredded Wheat Biscuit for a long time, so know of its value. Recently I had a very sick child, four months old, suffering from inanition. After trying all the different prepared foods without result, and the baby losing ground every day, I made a prepared food from Shredded Wheat Biscuits in the manner you direct for infants.

The baby thrived from the very first and was soon as well nourished as any child. Since then I instruct a mother who is unable to nurse her child to put it on Shredded Wheat baby food, and I always have good results. One mother whose first child was brought up on a prepared food while her second and third took Shredded Wheat, told me that it meant a great deal to her, for the prepared food for her first child cost her about a dollar a week, while the Shredded Wheat Biscuit cost only about a cent apiece.

Dr. Ernest W. Lowe, Fremont, N. H.

Could Find Nothing to Agree With Him

My baby weighed ten pounds when he was born and at the age of three months his weight was seven and a half pounds. I tried all the well known baby foods, but could find nothing to agree with him. At last I gave him Shredded Wheat, prepared as a baby food, and he began to gain

almost immediately. Since then he has been entirely well and has good, solid flesh, sound teeth and walked at the age of one year. He is now fifteen months old and weighs twenty-seven pounds. I cannot say too much in praise of Shredded Wheat, and think it does all that is claimed for it.

Mrs. Lester Barron, Morton, N. Y.

So Much Cheaper Than Other Baby Foods

Realizing that hundreds of mothers do not know what to feed their babies, perhaps after trying many "baby foods," I am writing to inform you what an excellent baby food Shredded Wheat is.

I am personally acquainted with mothers who tried every food they knew of, and finally gave them up and tried Shredded Wheat with great success. I have brought up two children on it, and have another at present who is thriving on it.

Everyone knows the nourishing qualities of Shredded Wheat, its cleanliness, too, counts a great deal with a baby. It is much cheaper than any other food I know of, and many who cannot afford to feed their babies on these expensive foods can afford to buy Shredded Wheat. I must add that my physician has recommended it to many after inquiring of me how to prepare it.

I hope this letter will interest you as I would very much like to see Shredded Wheat advertised as a "baby food," for I so pity the hundreds of babies who do not get nourishment enough because their mothers do not know what to give them or cannot afford to buy these other foods.

Mrs. O. Saunders, 45 Avon St., Brockton, Mass.

Had Not Gained a Pound for Six Months

Our little girl weighed twelve pounds when she was four months old, and never gained a pound for six months. My wife, having tried nearly every other food without success, saw your little booklet recommending Shredded Wheat for delicate babies. She gave it a trial, prepared as you directed, and soon noticed improvement, and now after using it three

months baby weighs twenty-one pounds, and seems to be perfectly healthy. I trust this testimonial will encourage someone else to try Shredded Wheat for a delicate baby.

C. L. Wells, Salem, Va.

Everyone Asks: "What Do You Feed Her?"

I have found your Shredded Whole Wheat Biscuit invaluable as a food for my baby daughter. At two weeks of age she was put on a diet of Shredded Wheat and that has been her food ever since. Now, at five months, she is such a wonder of healthy, fat, solid babyhood that everyone asks "What do you feed her?" Her flesh is hard and solid, she weighs twenty pounds, has never been sick a day, never spits up her food, never has colic. I have recommended this food to numerous mothers in this town, where my husband is a professor in the State University, and the result has always been satisfactory.

Mrs. John Homer Huddleston, Orono, Maine.

Easy to Prepare and so Inexpensive

Having read so much about using patent food for babies, I should like to say that my two little girls, one aged three years and the other eleven months, have been raised on Shredded Wheat alone. They are beautiful children, and owe their happy dispositions to your food. As a baby food, I prepared it according to the directions given in your little book. My babies never need a physic, have never had summer complaint, and have cut all their teeth without any trouble. I find the food very easy to prepare, and very inexpensive, costing about forty cents a week.

I have a friend whose little one could retain no food of any kind. The doctor had given him up to die, but at her aunt's suggestion she gave him Shredded Wheat, and today he is a strong, healthy boy. I hope that mothers all over the country will discover the merits of your wonderful food.

Mrs. Helen Donovan, Paw Paw, Mich.

If Shredded Wheat when prepared as directed is good for babies it naturally follows that it is good for nursing mothers, invalids and convalescents. The mother who is nursing a growing baby is subjected to a great drain upon her energy and vitality. She needs nourishing, sustaining foods that are easily digested. For the mother who is nursing a baby, or carrying a baby, for the invalid or the convalescent, nothing can equal Shredded Wheat as a nourishing, satisfying, easily digested food.

For invalids whose stomachs are in a very delicate condition it is best to prepare a gruel from Shredded Wheat by simply cooking the Shredded Wheat in milk until it has the consistency of gravy; then strain through fine cheese cloth, pressing all that will come through. That which comes through the cheese cloth may be served as an ordinary gruel or porridge, with or without milk. When the vigor of the digestive organs has been restored it is best to begin eating Shredded Wheat just as it comes from the factory ovens so that natural peristalsis (bowel exercise) may be restored as speedily as possible.

For babies and invalids the bran should be removed from Shredded Wheat as indicated above, but for persons in natural vigor the bran in Shredded Wheat serves the useful purpose of stimulating bowel movement, thereby making it a complete, perfect food for youngsters and grown-ups. The Biscuit should always be heated in the oven to restore its crispness before being served.

Some Shredded Wheat Dishes

Shredded Wheat Biscuit is something more than the world's standard breakfast cereal. Eaten with hot or cold milk or cream it supplies all the energy needed for a half day's work, being rich in the elements that supply muscular energy and brain power. Its filamented form, however, gives it very wide culinary uses, being adapted to palatable and wholesome combinations with fresh or preserved fruits or with creamed meats or creamed vegetables. With it many dainty and delicious puddings can also be made.

To prepare the Biscuit for use with fruits or creamed meats or vegetables, crush in the top of the Biscuit with the bowl of a teaspoon. Fill the Biscuit with the fruits in their own juices and serve with milk or cream and sugar. To make delicious patties fill the basket with creamed meats or creamed vegetables.

To accommodate those who do not believe in the use of salt, or prefer very little, no salt is used in making Shredded Wheat. Those who relish or feel that they require salt may add it to suit the taste.

Shredded Wheat crumbs are far superior to the ordinary bread or cracker crumbs for breading fishballs, chops, croquettes, oysters, etc., and for all dishes where crumbs are used, such as escaloped oysters, soufflés, etc., as well as for stuffing for roast turkey, chicken, duck or other fowl.

Because of the porous structure of the shreds, and as they are made very crisp in the baking, the Biscuit will at times absorb moisture. This, however, can be immediately removed by thoroughly heating the Biscuit in the oven, which will at once restore its original delicious crispness. This

should always be done just before using the Biscuit in whatever form.

Shredded Wheat Biscuit With Milk or Cream

Thoroughly heat the Biscuit in the oven to restore crispness. Then place the Biscuit in a saucer or bowl and pour hot milk over it. Pour a little cream over the top of the Biscuit, and salt or sweeten to suit the taste. If preferred, cold milk instead of hot milk may be used.

Another method which finds much favor is to dip the Biscuit in milk, drain and fry in butter, after which it may be served with a little cream. If milk or cream do not agree with you, dip the Biscuit quickly in hot salt water and place a chunk of butter upon it, allowing the butter to melt into the shreds. The Biscuit also makes a good substitute for white flour bread toast when split and toasted in the oven and eaten with butter.

Poached or Scrambled Eggs on Shredded Wheat

Moisten the Biscuit slightly with cold water, place small bits of butter on top, put in a buttered pan in hot oven three minutes. Use as a toast for scrambled or poached eggs.

Strawberries in Shredded Wheat Biscuit

Prepare berries as for ordinary serving. Crush an oblong cavity in the top of the Biscuit with the bowl of a teaspoon, removing the inside shreds to form a basket or patty shell. Heat the Biscuit basket thoroughly in the oven, then fill with the strawberries in their own juice, and serve with milk or cream. Sweeten to suit the taste. Raspberries and blackberries can also be served in the same way.

Sliced Peaches in Shredded Wheat Biscuit

Pare and slice the peaches as for ordinary serving. Make the Biscuit basket as directed in the preceding recipe, heating thoroughly in the oven just before using, and fill with the sliced peaches in their own juice. Serve with milk or cream, and sweeten to suit the taste. In the same manner, baked apples, prunes, pineapples and other fruits, fresh or preserved, can be used with Shredded Wheat Biscuit.

Sliced Bananas in Shredded Wheat Biscuit

Peel and slice the bananas with a silver knife, cover with granulated sugar and set in a cool place. Prepare the Biscuit basket as explained in the preceding recipes. Dip the Biscuit in milk and drain off all the milk possible. Fill the Biscuit basket with the sliced bananas and serve with milk or cream. If desired, the bananas may be covered with whipped cream decorated with little cubes of bright jelly.

Creamed Chicken Shredded Wheat Patties

Prepare the Biscuit patty shells, as explained above, and place them in the oven to heat. Make the usual white sauce required for all creamed dishes and add the cold, chopped chicken. Fill the baskets or patty shells with the creamed mixture and put back in the oven for five minutes. Remove to a warm platter, pour over them the remaining mixture and serve at once.

In a similar manner creamed oysters, clams, codfish, salmon, dried beef, peas, asparagus, mushrooms and all other creamed meats, fish and vegetables can be very daintily and deliciously served with Shredded Wheat Biscuit.

Triscuit with Butter, Cheese or Marmalade

Thoroughly heat the Triscuit in the oven to restore crispness. Use as a wafer or toast spread with butter, cheese or marmalade, or serve with beverages. Triscuit also forms a delicious basis for many dainty dishes, such as poached or scrambled eggs on toast, Welsh rarebit, lobster a la Newberg, and for practically all other chafing dish combinations.

Welsh Rarebit on Triscuit

One half pound cheese, $\frac{1}{2}$ -cup rich milk, 1 egg, 2 squares butter, salt, mustard and cayenne pepper. Cut the cheese into small pieces and put it in the blazer over the hot water pan. When it begins to melt add the butter. Work them together with a spoon until the cheese is thoroughly melted and hot, but do not let it come to a boil. Keep it from getting too hot or thick by adding the milk in small portions, and when smooth add the egg beaten light and season to suit the taste with the salt, mustard and cayenne pepper. Serve on warm Triscuit.

Ten Reasons for Shredded Wheat

1. The whole wheat contains all the elements for the complete nourishment of the perfect human body—for making healthy tissue, bone and brain.

2. In making Shredded Wheat Biscuit the whole wheat grain is made digestible by steam-cooking, shredding and baking.

3. The steam-cooking breaks down the starch cells in the center of the whole wheat grain, making them soluble and more easily digested.

4. These filmy, porous shreds expose a vast surface to the action of the digestive fluids and are quickly penetrated by the digestive juices.

5. The baking of these shreds in the form of little loaves still further dextrinizes the starch in the wheat grain, preparing it for assimilation. The crispness of the shreds encourages thorough chewing—an important process in digestion.

6. In making Shredded Wheat Biscuit the entire wheat berry is used, including the outer bran-coat (cellulose) which serves the useful purpose of stimulating peristalsis (bowel exercise).

7. Shredded Wheat Biscuit is a better-balanced ration than meat or eggs, is more easily digested and costs much less. It contains just the right elements to properly nourish the human body.

8. Shredded Wheat Biscuit contains no yeast, baking powder, or chemicals of any kind. It is not flavored, treated or compounded with anything.

9. Being ready-cooked and ready-to-eat, it is easy to prepare with it in a few moments a delicious, nourishing meal.

10. Two Shredded Wheat Biscuits with milk or cream make a complete, nourishing meal at a cost of only four or five cents—the most nourishing food at lowest cost.

In Summer or Winter two Shredded Wheat Biscuits with Milk or Cream make a complete, nourishing meal.



SHREDDED WHEAT WITH MILK OR CREAM.

An all the year-round dish-easily and quickly prepared supplying all the nutriment needed for a half day's work.



SHREDDED WHEAT WITH BANANAS

Nothing so Appetizing, Wholesome and Satisfying as
Shredded Wheat with Strawberries and Cream and Sugar.



SHREDDED WHEAT WITH STRAWBERRIES

Because its porous shreds absorb the natural flavors
Shredded Wheat combines most deliciously with Fruits.



SHREDDED WHEAT WITH PEACHES.

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